

# MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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## Manufacturers' Record

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EDWARD INGLE, Managing Editor.

THOMAS P. GRASTY,  
General Staff Correspondent.

Branch Offices:  
New York—52 Broadway.  
Boston—170 Summer Street.  
Chicago—135 Adams Street.  
St. Louis—310 Equitable Building.

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BALTIMORE, FEBRUARY 21, 1907.

## THE MAKERS OF THE MANUFACTURERS' RECORD.

With this issue the MANUFACTURERS' RECORD closes its 25th year. It has rounded out a quarter of a century. Twenty-five years ago desk room for one in a small and crowded office sufficed for the needs of the paper and more than equalled its financial ability. Its editor, bookkeeper, mailing clerk and wrapper writer then is its editor today. Most of the leading members of its editorial and business staffs have grown up in the office, a number of them from the knee-breeches age, and have been actively at work here for 18 to 20 years or more, and some for nearly the full quarter of a century. Others who rank among its best men number their years of service with the MANUFACTURERS' RECORD from 15 years all the way to a year or less. It is an ever-growing force from which few retire and to which constant additions must be made. Never has any business institution had a more enthusiastic, faithful body of men in its employment—and of women, too, for some 25 good women are now engaged in its various departments. It is to the untiring energy, the love of their work and their enthusiasm for it that the success of the MANUFACTURERS' RECORD is due. With them it is not time service, but

heart service—a whole-souled love for their work which is an inspiration to every man who comes in touch with it. It matters not whether it is the men on the road, the editorial staff, the men in the business department or the stenographers, when the good of the paper calls, that is to them the call of pleasure as well as of duty. In this office there has never been any bickering or backbiting, never a man seeking another's place, never a friction between the various departments, and, so far as the writer knows, never a word uttered which could not be spoken in the presence of good women. But a jollier or more mischief-loving set of people would be hard to find. With such a force nothing is too hard. To such a staff no tribute can be too high, but in closing this quarter of a century's work these few words of commendation must in justice to those who have made possible all of the success of the MANUFACTURERS' RECORD be recorded here.

R. H. E.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 76, 77, 78 and 79.

## READ FAR AND WIDE.

The Lowell Crayon Co., Lowell, Mass., in a letter to the MANUFACTURERS' RECORD enclosing a letter received from Constantinople, says that it sends the latter as "showing the broad reach of your paper in other countries." The letter to which they refer is as follows:

EDOUARD INDJEFAN,  
Constantinople,  
January 22, 1907.

Lowell Crayon Co.,  
Lowell, Mass.:

I notice in the MANUFACTURERS' RECORD the advertisement of your estimable product, and I beg that you will be good enough to tell me if you would be favorably disposed towards entering into relations with my house. Having a large demand for your goods, I hope to be able to do a good business, providing your prices and conditions are acceptable to our market. Will you therefore send me by return mail your printed catalogue and, if possible, a few samples, with your best prices delivered (J. O. C.) Constantinople, and I will send you some orders.

Accept, sirs, my sincere greeting.  
EDOUARD INDJEFAN.

## A HORRIBLE HEADLINE.

Why should an item in the Montgomery Advertiser recording the warning by Secretary Henry G. Hester of the New Orleans Cotton Exchange, one of the representative and most valuable citizens of the country, against a danger to legitimate cotton interests in the tendency of certain legislation pending in four or five Southern States be headed "Hester Has Howl?" Gentlemen are not accustomed to howling even for the benefit of headliners inclined to alliteration.

## TWENTY-FIVE YEARS' WORK WITH THE SOUTH.

Looking back over the 25 years which close with this issue of the MANUFACTURERS' RECORD since it was started, what a wonderful story of progress has been recorded! A quarter of a century of such advance in material affairs as man never dreamed of before has passed. We can scarcely believe the things we know to be true. We cannot understand the smallness of our business interests 25 years ago for trying to grasp the magnitude of the present. Those who can look even a little further back than that 25-year period will remember how the boom of 1879 and 1880 was regarded in the business world. It was then thought that we were, indeed, a great people who had wrought mightily in material upbuilding. It seemed then very proper to be boosters of the nation's advance, and the first issue of the MANUFACTURERS' RECORD referred to what was at that time regarded as the "marvelous development of the South." In succeeding issues the story not only of Southern advancement, but of what was likewise regarded as the wonder of the times, the story of national development in manufactures, was elaborately covered. How small do the figures of that day seem as compared with the present!

In 1882, the year in which the MANUFACTURERS' RECORD was born, the whole country produced but 4,623,323 tons of pig-iron and mined only 86,710,834 tons of coal. There were only 114,677 miles of railroad in the United States then, with an aggregate of 39,302,209,249 miles-tons of freight.

Last year the United States made 25,300,000 tons of pig-iron and mined about 425,000,000 tons of coal. It had in operation 223,000 miles of railroad in main track and more than 90,000 miles in sidings. Its freight tonnage in 1905 (the figures for 1906 not yet being available) were 187,375,621,537 tons. The South alone is now mining far more bituminous coal than the United States mined in 1882, and its pig-iron production is rapidly pressing on to the point where it will exceed what the entire country was then doing in ironmaking.

These statistics have so often been used to tell of the growth of the country at large, and especially of the South, that one almost becomes weary in attempting to give some conception of what the last 25 years have shown in material upbuilding. And yet it is a story well worth repeating. It is well worth studying in statistics, for only through the use of figures can one reach a fair realization of the mighty changes which have been wrought in the last quarter of a century. What a time of poverty and wretchedness were those days in the South! Without capital at home, discredited away from home, every man who went North seeking to interest outside capital in Southern enterprises found only a cold trail. The world had no faith in the reality of Southern resources, no faith in the South's ability to settle its serious labor and political problems, and the men who tried to change this sentiment felt that butting down the Chinese wall with their heads would be an easier task. In those days every new enterprise, however small, was regarded as something of a wonder. One man could keep track of every new industry started in the South and still have three-fourths of his time for other things. The addition of a hundred thousand spindles to our textile interests, the building of a new furnace or the opening of a new coal mine was regarded as evidence of great progress. What a change has taken place! The Chinese wall is down—in fact, it is as though its materials had been used to build great highways over which the men and money of other sections may race southward. Against despair then we have buoyant optimism now; deep poverty has given way before the advance of an all-conquering prosperity; the discredited section of 1882 is now throughout the world recognized as the predestined industrial center of earth, based on greater natural advantages than can be found anywhere else on the globe.

That the MANUFACTURERS' RECORD has been permitted to be a factor in this upbuilding of the South and of the nation—for the development of the South has been the enrichment of the nation—is its chiefest joy. Without material development for itself this work would never have been possible. Every new subscription, every additional page of advertising has been but the furnishing of more fuel for the power with which it has driven its work in behalf of the South. This work has sought to develop in the South an appreciation of its own marvelous opportunities and to make known to the outside world the home and money making advantages of this favored land. In this campaign the MANUFACTURERS' RECORD has spared no expense of work or money. In addition to its daily, weekly and monthly publications, it annually distributes many hundreds of thousands of leaflets and pamphlets about the South, and sends out an average of 1000 letters a day, every one giving facts about the development of the South and the possibilities of the future; it furnishes freely to all who ask for it—and that includes Governors, United States Senators and Representatives, and public men of every section, and newspapers, North and South alike—data for speeches, magazine stories and special articles. Its machinery, or "plant," if it may be so called, for gathering and disseminating facts about the South is the result of a quarter of a century's hard work, and now, as we enter upon the first year of another quarter-century run, we extend our greetings to the thousands whose friendship has made of this work a joy and delight, with the hope that many of the subscribers and advertisers of today will, 25 years hence, join us in a half-century banquet, to which we now extend a hearty invitation.

### WORLD-WIDE SHORTAGE IN RAILROAD FACILITIES.

The MANUFACTURERS' RECORD has repeatedly pointed out that the railroad congestion from which we are suffering is not confined to this country, but exists elsewhere, and in some foreign countries to almost as great an extent as in the United States. This is especially true in Germany, where there is much complaint on account of the lack of needed track and the lack likewise of rolling stock. The same conditions as to the scarcity of labor also prevail in Germany, and are beginning to become more and more pronounced in other parts of Europe. Discussing these facts the *Iron and Coal Trades Review* of London says:

Germany is not likely to have any surplus labor for some time, and France, with its stationary population, is similarly situated. Austria-Hungary is better placed, but the opening up of new collieries in that empire is not likely to be a rapid process. Russia and Spain we may leave out of the discussion for the time being. Foreign collieries are at the present moment turning out their maximum output, taken as a whole.

Next, there is the question of the congestion of railway traffic abroad, not to mention that existing in our ports. It is not merely a question of more wagons. What is wanted on the continent is more lines of railway radiating from the great colliery districts. In Westphalia even the passenger traffic at the present time is not adequately met. The canal systems of Germany and France have been largely and are still being rapidly developed, and the rivers are being used to the utmost, but even when everything has been done that the fertile brains of our neighbors can suggest and their pushful energy accomplish it will be years before the theoretical capacity of the Westphalian collieries is reached. If more could be done than is being done we may be sure that such extensions would have been taken in hand, for the Government (or fiscal) collieries in Westphalia will from now on turn out even larger annual quantities of coal.

With Germany and France, with their comparatively small area and the great developments which have been made in their systems of waterways, lacking not only in rolling stock, but in actual needed mileage, we gain some idea of the world's needs for increased mileage. These facts likewise emphasize the position which the MANUFACTURERS' RECORD has taken in favor of the broadest and quickest development of our rivers and harbors by the National Government. Whatever may be the temporary conditions of business within the next few years by reason of the inability of the railroads to carry on a broad campaign of development, we have before us the certainty that the growth of this country will continue far in excess of anything which we can now see in the way of transportation facilities. It is possible that the persistent agitation against the railroads may militate against their finding the needed capital for great expansion. This may temporarily cause some slackening in trade interests, but should this come about it will of necessity be only temporary, and the succeeding period of activity will be as much greater than the present as the power and momentum of our increase in population and of the world's material advancement is greater than what we have had in the past. The man who wants to prepare for the future must broaden his horizon and look out upon the world-activities and see that the conditions which now surround us are entirely unlike anything in history.

The railroads are complaining about the increased cost of money, and in some cases are unwilling to pay the higher price which money is commanding. Some are overlooking certain fundamental facts to which attention has repeatedly been called. These facts are

that there is such an advance going on throughout the world, coincident with steadily rising prices and higher labor cost, due in part to the world's activity and in part to the enormous increase in gold production, that money will command a higher rate of interest. As labor and agricultural and manufactured products have for some years been advancing in cost, so money has been doing the same. The bankers and the railroad people have largely been waiting for a decline in money, but instead of that money is advancing, or, expressed in another way, a higher rate of interest must be paid in order to secure money. This is seen in the gradual but very large decline in the value of bonds which has been going on during the last year or two. We have been entering upon a new period in the world's economic conditions, and most of our financiers and railroad people have not yet realized that it is more than a passing matter of a year or two. They have been looking for an advance in the value of bonds and a lowering of the rate of interest. Repeatedly during the last year or two the MANUFACTURERS' RECORD has pointed out that the opposite conditions, just as we now see, were inevitable.

### TO DEVELOP APPRENTICE SYSTEM.

If I were a younger man I should seek to establish a large iron plant, and in connection therewith establish a first-class school provided with the very best equipment in buildings and teachers, getting the ablest principal without regard to the amount of salary to be paid. In this plant I would require that the boys of every family employed there should attend school, either day or night, for about two and one-half hours a day, and for the balance of what is coming to be the working day or eight-hour shift in iron works they should be put into shops or some department with the opportunity to become good all-round mechanics and practical men.

Eighty-three-year-old John Fritz, the real creator of the Bethlehem Iron Co. and the father of the American armor-plate industry, thus expressed himself in a talk with the editor of the MANUFACTURERS' RECORD at Atlantic City in August, 1905. Mr. Fritz was earnestly discussing the opportunities for young men in this country and was lamenting the tendency in education to unfit boys for the real work of life, in which self-reliance would give them independence. He took the position that a plant managed as he suggested, with its educational adjunct, would be able practically to defy the competition of the world. At Atlantic City at the time was young Charles M. Schwab, principal owner of the Bethlehem Steel Works, and Charles M. Schwab seems in 1907 to be determined to put into effect the 1905 suggestion of John Fritz.

It is announced, according to a dispatch in the *New York Times*, that the Bethlehem Steel Works intends to compete with the world in all grades of work, and as part of the preparation for that competition Mr. Schwab will endeavor to secure 3000 boys and youths to be employed by the Bethlehem Steel Works and to be transferred into highly-trained, thoroughly skilled mechanics, artisans and metal workers. The plan involves paying the boys for their services, their wages increasing as they advance in efficiency, the giving of money prizes and sets of tools for accomplishment, and the founding of a technical school embracing in its curriculum thorough instruction in the rudiments of the various trades.

If Mr. Schwab can get together under this plan 3000 lusty youths as full of the purpose to become productive

members of society as is he to give them opportunities to participate profitably in the expansion of one of America's great industries, he will begin a much-needed revolution which will demonstrate the fallacy of the saying that revolutions never go backward. He will demonstrate by contrast the evil effects of the exaggerations of the importance of what may be called literary training in education and be a power in the cultivation of a public opinion that will compel a return to the position that for the great mass of the youths of the country practical experience is the best sort of education. Three thousand youths earning and learning at the same time in an industry which, for the mass of those engaged in it, means more substantial and more satisfactory returns in every respect than those coming to the mass of men in the professions, in clerkships, etc., will also be powerful antidotes for the poison now being injected into the rising generation, either by so-called philanthropic efforts to bar them as long as possible from aspirations to work for a living or by a policy limiting their opportunities in that direction when they have the inclination, which is leading so many thousands to look upon honest work as something beneath them and to become parasites upon society in their aim to live without labor.

### MAGNITUDE OF RAILROAD EXPENDITURES.

The enormous growth of railroad business in this country is more or less familiar to the public, but only in a general way. It is therefore particularly interesting and timely to consider the increase in the case of a single transportation company, and this opportunity of study is afforded by the final report of the special committee of the Pennsylvania Railroad Co. which was appointed in May last to examine into and report facts concerning the acquisition by officers or employees of stock or other interest in other corporations which could affect their duty to the railroad company or its duty to the public. The report deals with many facts relating to the business of the Pennsylvania Railroad, but the data particularly of interest in relation to the growth of traffic is that showing the expansion of the company, which is typical of other railroad corporations.

The report says that the period between 1899 and 1907 will be memorable in the road's history. In 1899 the Pennsylvania faced a growing traffic, inadequate receipts and increased cost of operation. To provide adequate facilities and lessen cost while increasing efficiency expenditures upon an unexampled scale had to be made, and the money had to be provided for so much of those expenditures as was charged to capital. Thus from 1899 to 1905, inclusive, the total share capitalization of the several companies was increased from \$251,662,176 to \$485,917,321. The large expenditures to meet increased requirements are shown by statements that \$62,703,367 were spent for real estate to be used as right of way for additional lines and extensions, yards, terminals and stations. Renewals of road, yards, terminals and buildings were made on a greater scale and more substantially than ever before at a cost of \$160,720,289, all charged to operating expenses. New construction cost \$268,773,763, of which \$140,171,667 was charged to income and \$98,505,592 to capital, the rest being taken from profit and loss. An adequate description of the new construction would, it is said,

require a volume, but the most important was the double-tracking of the Western lines finished on the Fort Wayne division and in progress on the panhandle division; also the extension, both east and west, of automatic signals, the completion of a four-track line practically all the way from New York to Pittsburgh and the building of branch lines as feeders. For a large part of the distance between New York and Pittsburgh a double-track freight line, independent of the four-track line, is also provided. Besides this, grades and curves were reduced and eliminated, grade crossings were done away with, and much other work, such as the building of bridges, tunnels, stations, etc., was also engaged in. During the six and a half years ended June 30, 1906, the cost of material and supplies bought by the purchasing departments was \$412,499,698.

The increase in the volume of business is shown thus: The tons of freight moved one mile increased from 18,848,947,142 to 32,240,172,703, or over 71 per cent, and the passengers carried one mile increased from 1,875,588,476 to 3,376,368,992, or over 80 per cent. For the year 1906 the approximate earnings were, from passengers, \$67,365,392; from freight, \$202,616,555; total, \$269,981,947. (It may be noted that during the same period the population of the country increased about 15 to 17 per cent.) The increased volume of this business made necessary an increase in the number of officers and employees from 115,725 to 198,930. Since 1900 two advances of 10 per cent each were made in the pay of all employees whose wages were less than \$200 a month. The increased volume of business also necessitated large increases in equipment. Thus the number of engines increased from 4813 to 6029, with an increase in tractive power from 73,199,933 to 166,082,441, altogether 2553 engines having been built or rebuilt at a cost of \$60,551,481. There were also 122,718 freight cars built or rebuilt at a cost of \$124,841,319, the increase in capacity being 4,927,122 tons. There were also 1741 passenger cars built or rebuilt at a cost of \$10,413,746, making a total expenditure for new equipment of \$195,806,547.

Thus in the period of six and a half or seven years under consideration the Pennsylvania Railroad spent a total of \$1,100,503,664 for real estate, renewals, new construction, materials, supplies and equipment—that is, over eleven hundred millions of dollars to enlarge its capacity for doing business. This was done by only one system, and reflection upon the magnitude of other systems, not to mention many small lines throughout the country, may give to the reader a faint conception of the vastness of the sums which are being spent by railroad corporations to keep pace with the demands of commerce and industry.

### A DESIRED END.

Mr. W. B. Royster of the Chamber of Commerce of Chattanooga, Tenn., writes to the MANUFACTURERS' RECORD as follows:

The keynote of the so-called "Negro Problem" is struck at last by your editorial of February 14, "Quit Discussing the Negro." If the publications in this country would adopt this policy and quit the discussion—cut him out of every Southern publication entirely—the problem will be settled. Keep up your fight against any public discussion of this matter by the whites, and especially against public discussion by an assemblage recruited from both races.

We are glad to note this evidence of a growing healthy public opinion that

the negro has been injured by exaggerated publicity. While encouraging the substantial whites of the country to impress their friendliness upon the negro in private and personal converse, we would discourage public discussion of the negro by whites, and equally so publicity of utterances by any negroes. Failure of publicity will be the surest means of inducing the privacy about the negro problem so strenuously demanded by existing conditions. So anxious is the MANUFACTURERS' RECORD for a subsidence of discussion of the negro problem that it even hesitates to make this suggestion.

INTELLIGENCE OF AMERICANS  
AROUSED TO THE MENACE  
OF THE EDUCATIONAL  
TRUST.

Disinterested intelligence is surely awakening to the menace to America emphasized by the enormity of the latest \$32,000,000 accretion to that phase of the slowly-forming Educational Trust known as the General Education Board of New York. That fact is emphasized when such a substantial and usually clear-thinking daily newspaper as the New York *Journal of Commerce* feels compelled to turn from the material fields where it does such effective work to discuss in an editorial, reproduced on another page of this week's issue of the MANUFACTURERS' RECORD, the manifest tendencies which advocates of the General Education Board reveal without apparently feeling their significance. One of the unfailing supporters of the tendencies, popularly called the Ogden Movement, is *The Outlook* of New York, which, referring to the latest accretion, says:

With this financial power in its control, the General Education Board is in position to do what no other body in this country can, at present, even attempt. **It can determine largely what institutions shall grow, and, in some measure, what shall stand still or decay.** It can look over the territory of the nation, note the places where there is a famine of learning, and start new educational plants of any species it chooses, or revive old ones. It can do in many ways what the Government does for education in France or Germany. Its power will be enormous; **it seems as if it might be able really to determine the character of American education.** The funds it holds represent only a fraction of the amounts which it will really control; **by giving a sum to an institution on condition that the institution raise an equal or a greater amount, it will be able to direct much larger amounts than it possesses.**

Another earnest advocate, the Brooklyn *Daily Eagle*, says:

There are some 400 colleges placed in small country towns. That is the policy which the General Education Board will reverse. It will establish colleges in many considerable cities and centers of population which now have none, and it will enlarge the facilities of colleges in centers of population like Brooklyn, where the local institutions are entirely inadequate to the needs of population.

These may be regarded as friendly interpretations of the policy of the Educational Trust, described in New York newspapers last week as follows:

While certain colleges will be selected for contributions or endowments, forming a chain of educational institutions across the continent, others not so favored will be left to their fate by the Rockefeller fund, and **many of them, it is expected, will be forced to close their doors in the face of such strong support to their fortunate rivals.**

It is no wonder that patriotism has awakened to the menace, and it is not to be expected that it can be lulled to sleep by flooding metropolitan newspapers, as on Sunday last, with illustrated write-ups of visits to the arcanum of the Educational Trust. A body

blow is given by the Springfield (Mass.) *Republican* in these words:

There are those who still hold the idea that but for these great individual fortunes and their benefactions society would be worse off than it is in educational and philanthropic work. Such a theory is wholly untenable—that the people generally cannot be trusted properly to appreciate the importance of education and other effort for the elevation of the race and the amelioration of the general conditions of living or to contribute adequately to their support. It is only true that the people will be lagard in support of such efforts when a comparatively few towering fortunes exist, able and willing to be leaned upon for these needs. **Then we may expect communities and institutions to develop a mendicant attitude and turn from self-help to help from beyond which flows down as if from some superior source that is to be held in worshipful consideration.** How socially demoralizing this must be no one can fail to understand.

With this should be read the following abstracts from the editorial of the New York *Journal of Commerce*:

A system of giving which has its own rules and customs, which is governed by principles of selection laid down in the beginning, which ramifies throughout the country and embraces especially those smaller institutions that are hampered by narrow means, is an infinitely more powerful force in the shaping of opinion than any single capitalist who makes separate and often unconditional gifts to be controlled and invested by the institutions themselves could ever be. **As a mechanism for controlling academic opinion, there has perhaps never been anything in the history of education that would compare with the board system of subsidizing learning.**

Gifts to education are like campaign contributions in that they are best made in relatively small amounts and from many sources. Under such circumstances they are likely to leave the recipients in position to choose their own course in matters of opinion and teaching. If they must be large, it requires greater force of character to maintain independence of thought and action. Such freedom has been lacking in too many quarters.

The spectacle of a university president preaching the maintenance of some of the worst abuses of capitalism and another meekly bowing the knee to receive the money offered by those for whose acts he had but lately suggested social ostracism as a penalty is not edifying. Instances can be given in abundance where the mere prospect of an immediate gift has changed the whole current of a college administrator's thought and made him trim his sails on an entirely new tack to catch the favoring breezes of prosperity. The craze and competition for large numbers of students has greatly crippled those who would uphold the older traditions of independent economic thinking. Increasing numbers mean increasing expense in college administration and lead to growing dependence on wealth of doubtful origin. This, among other reasons, is ground for thinking that the enormous benefactions of the past few years, whether as pensions, endowments or annual gifts to colleges, may put our academic thinkers into a moral strait-jacket at the same time that they are freed from the cramping influences of limited means.

The sentences in these comments put by us in darker type only emphasize the soundness of the position taken by the MANUFACTURERS' RECORD toward this Ogden Movement from its inception, and enforce the conviction that duplicating or quadruplicating the amount of money at the disposal of the Educational Trust only increases the necessity for American patriotism to increase its efforts to prevent the sure ends of the trust, whatever may be its purposes.

Opposition to the menace will not be turned aside by such limping bluffs at alleged criticism as that attributed in the Atlanta *Georgian* to Mr. Robert C. Ogden, as follows:

Mr. Ogden was asked to give his opinion of the statement published in the *Georgian* last Saturday from Richard H. Edmonds of Baltimore, editor of the MANUFACTURERS' RECORD, in which it was said that it was not always the needy college or institution that received assistance, because of the clause

which makes it contingent upon the college receiving a donation to raise twice the amount, and submit to other regulations.

At this the philanthropist threw up both his hands, accentuating his disapproval of Mr. Edmonds' statements.

"That was all wrong," said he. "With all due regard for Mr. Edmonds and his ideas, he has been misinformed, and his statements must have been based upon incorrect information. All deserving colleges are assisted, but they are carefully investigated before hand. None are forced to mortgage themselves; that is not the spirit or the policy of the board."

If that incident occurred as reported, Mr. Ogden was indulging in unnecessary calisthenics. The *Georgian* published no statement from the editor of the MANUFACTURERS' RECORD "in which it was said that it was not always the needy college or institution that received assistance." The MANUFACTURERS' RECORD knows of no college, rich or poor, that is so needy that it should place itself in a position to be cursed by attachment to the Ogden Movement. As to the report in the *Georgian*, the editor of the MANUFACTURERS' RECORD can do no better than to repeat what was published from him last Saturday in reference to alleged comments by Mr. Ogden, put in another form in press dispatches and discovered also in the *Georgian*:

If Mr. Robert C. Ogden so desires I shall take pleasure in publishing in the MANUFACTURERS' RECORD whatever positive, specific, unmistakable and clearly-defined charge he may make of inaccuracy of statement on my part about the Ogden Movement, including the General Education Board, the Southern Education Board, the Conference for Education in the South and its other appendages and agencies, which I have not myself voluntarily corrected as soon as I had accurate information, with the condition, of course, that at the same time I answer the charge.

THE FOREST-RESERVE BILL

Hold-up in the House of Representatives of the bill providing for the establishment of the Appalachian Forest Reserve and White Mountain Forest Reserve has resulted in vigorous petition being made by Southern men that the bill be allowed to become law. It passed the United States Senate without dissent, it has been urged by the President in messages to Congress and has been unanimously reported to the House of Representatives. It is believed that if the House had a chance to vote on it, it would become law, and the petitions are intended to impress upon members of the House the necessity for sparing no effort in that direction. One of the petitions signed by officials and by manufacturers of Tennessee, South Carolina and North Carolina and Georgia says:

Delay in the passage of this bill will mean not only that all the work hitherto accomplished will have availed us little, but also that meanwhile certain interests which it will be the more difficult to deal with in the future are rapidly becoming entrenched in this territory in question, and land and timber values are daily increasing. Moreover, due to an increasing activity in the wasteful and careless denudation of the mountains, devastating floods will occur with greater frequency, and irreparable damage will continue to be done to agricultural interests and to those manufacturing interests which are so largely dependent on the water-power of our streams.

Another petition from the Engineering Society of the Carolinas says:

We, from the nature of our profession, the more fully realize the immeasurable benefits and advantages that may accrue to the people of the States we represent, and to those of the neighboring States whose streams have their sources in the proposed reservation, by the control and prevention of further devastating floods, the discontinuance of the wasteful destruction of timber and the resultant needless erosion of valuable farming lands, the resultant conservation of our magnificent resources, for the economic development of power and the reduction

of appropriations for maintaining navigable our streams in their lower levels.

Other petitions have been prepared with the signatures of the Governors of all the States affected, including not only the immediate Appalachian States, but also Mississippi, Alabama, Indiana and Illinois. It is hoped that this petition movement will have effect and that the present Congress will provide for these reservations, the material value of which to vast areas of the country cannot begin to be measured by the comparatively insignificant amount of money involved in the proposed legislation. No reasonable excuse can be offered for delaying action in this important matter.

COXEYISM IN SOCIOLOGY.

About 13 years ago considerable alarm was created at Washington by the announcement that General Coxey's Army would march upon the Capitol for the purpose of making a show of numbers in behalf of measures looking to the issuing by the National Government of billions of dollars' worth of non-interest-bearing bonds for the construction of good roads under National auspices. Sensational journalism, detailing, in lurid headlines, glittering generalities and reckless statistics the things that happened and that didn't happen during the march of the Army upon Washington, worked the authorities of that model city, that National Sociological Experiment Station, into a state bordering upon panic, which was not allayed until the march of the Army, consisting of about 400 men, mostly derelicts and indisputable sociologizers, naturally having a deep personal interest in good highways, had been witnessed by 25,000 or 30,000 of the pleasure-loving in Washington and two or three of its leaders had been sent to the District Jail in handcuffs on the charge of walking on the grass in the Capitol grounds, and had been thoroughly cleansed and vaccinated. Those days of the "reunion of the Blue and the Gray" of Unknown Smiths and Reincarnated Browns, those days when that shrewd, kindly humorist, Coxey, worked off one of the finest satires upon tendencies in National legislation, are now remembered only with a smile. That smile broadens at the emergence into the discussion of the sociological movement, rollickingly patronized by young Senator Beveridge, known popularly as the National Child-Labor Bill and having just about as much reason and as much harmony with the Constitution and with common sense as Coxey's good-road agitation had, of gentle suggestions to the National lawmakers and to the manufacturers of the country that if they do not promptly act according to the behests of the latter-day Unknown Smiths and Reincarnated Browns, if they do not give immediate response to the throbs of "the great heart of the American people," the "goblins will git 'em." Experience with Coxey will prevent Congress from providing for an extra hundred or so of special officers about the Capitol, for signal service from the top of the dome to the headquarters of the District militia, and to Fort Myer and for prompt ambulance service. They have become accustomed to bugaboos, burkers, kidnappers and night-doctors. They have their soothing syrup, indeed, in the very oration of Senator Beveridge that was intended to stampede them into foolish and dangerous action.

No one can doubt that young Mr. Beveridge had been pretty well loaded for his piece de resistance, his chief

d'œuvre, his magnum opus, his *sine qua non*. But the thing went off at both ends, and the explosion indicated not only that his powder-monkeys evidently imagined that his effort was to be that more becoming a ward political orator than that befitting statesmanship, but that his surcharged emotions prevented him from using properly even the ammunition supplied him.

There were those affidavits, for instance, suggested, perhaps, by a rather regrettable episode of the gubernatorial campaign in Alabama last summer. One of them, with which Senator Beveridge seemed to be especially impressed, in that he inserted it in his speech twice, he apparently thought proved his assertion:

I shall present affidavits showing that the millowners of Georgia, of Alabama and of some of the rest of the Southern States were taking trainloads of shipments of children from Tennessee.

The essential part of the affidavit, the part bearing upon Senator Beveridge's assertion as to shipments of trainloads of children from Tennessee, was:

He saw on board the train an immigration agent of an immigration association of South Carolina who was in charge of a company of about 50 people bound for the cotton mills of South Carolina, whom the agent had induced to leave their homes in western Tennessee; that the agent told him that he had made seven "shipments" of these people for the cotton mills from Newport, Tenn., averaging 15 to the "shipment;" that seven more "shipments" had gone from Cleveland, Tenn.; that there were several agents at work besides himself, and that he had shipped personally about 500 people to the cotton mills.

Aflant went on to say that he had talked with some of the children in the company, and he mentions three under 10 years of age who told him they were going to work in the mills.

This incident had been described about a year before more elaborately. That earlier description dealt with "a company of 50 people bound for the South Carolina cotton mills," and quoted the immigration agent as stating "that he had *thirty-two* people on board for whom he had to pay half or full fare, besides the children." In all conscience, what basis was there in the affidavit which expressly quoted the agent as estimating other shipments of people, as averaging 15 to the shipment, for Senator Beveridge's belief that the millowners of other Southern States were "taking trainloads of shipments of children from Tennessee"? What basis was there in the affidavit referring to "a company of about 50 people" on the train for Senator Beveridge's oration about "a load of children being taken from Tennessee"? How many children under 14 years of age, or under 16, were among all the workers, the parties of people, secured by the immigration agent under the custom which involves the movement of whole families from isolated homes of neglect to the mill towns' opportunities, children who have since found work in the mills? Of what use are the 80 or 90 inches of affidavits inserted in Senator Beveridge's oration if they throw no more full light upon a grievous situation than the one quoted?

Upon one other affidavit Senator Beveridge placed great reliance as proof that census figures are hardly conclusive. That, from the assistant to the chief of the Bureau of Statistics and Information of Maryland, certified that the bureau since July 1, 1906, had "issued upward of 10,000 permits to work to children between 12 and 16 years of age \* \* \* working in the stores, offices, workshops and manufacturing

establishments of this State," and had rejected application for permits of "about 1200 children." Disregarding any comment as to the reflection upon the value of any bureau of statistics talking of "upward of" or "about," it is to be noted that Senator Beveridge held this affidavit to be sufficient for the following argument, dealing apparently with children at work in other lines than agriculture:

The census of 1900 gives Maryland as having something over 5000 children at work. The census bulletins of 1906 give 5553 under 16 at work in Maryland, of which 3666 were in Baltimore. Very well. In 1906 the Maryland law was amended, requiring children under 16 to secure permits testifying to physical and educational requirements. The law has been enforced about five months and a half, and already more than 11,000 permits have been granted and between 1200 and 1500 refused. So we see that in the State of Maryland the census of 1900 is by the record 100 per cent. below the truth.

Confusion worse confounded. Senator Beveridge did not know, of course, that he was dealing with juggled figures. The census of 1900 did show 5608 children under 16 years of age at work in Maryland factories, but it showed 18,080 children of that age in the occupations covered by the law of 1906, under which "upward of 10,000 permits" had been issued up to January 24, 1907. The census of 1905 showed that there had been a reduction since 1900 in the number of children employed in Maryland factories. So, instead of proving the inadequacy of census figures, the affidavit as used by Senator Beveridge shows clearly that Senator Beveridge knew as little about what he was talking in this particular as he did about other things in his oration.

One of the rarest gems of the mass of exaggeration and misinformation accumulated for him was the following:

Two million children under 14 years of age is bad enough; 700,000 in factories, mills and sweatshops is bad enough.

Before he essayed that absurdity Senator Beveridge ought to have slipped around for advance figures and other information in Bulletin 69 of the Census Bureau, based on unpublished information in the schedules of the 1900 census. The general public had access to the Bulletin after January 25. In it the significant and much-needed statement is made:

In popular discussion the total number of child breadwinners enumerated by the census has sometimes been cited as representing the number of children working in factory and mine and sweatshop. The census figures indicate that a large number of young children are employed in the pursuits which are thus referred to, but the number comes far short of the aggregate number of child breadwinners 10 to 15 years of age reported as employed in all occupations.

Senator Beveridge in his oration dealt with children under 14 years of age, expressly excluding those in agricultural pursuits. If he had consulted the figures of the census of 1900 he would have discovered that there were but 186,358 breadwinners 10 to 13 years of age in all occupations save those of agriculture, and he would have escaped coming under the suspicion, based upon his statement that 700,000 children under 14 years of age were in factories, mills and sweatshops in 1900, that if he does not bring to the discussion of other public matters any more personal knowledge or derived accurate information than that evidenced in his wonderful child-labor oration, he is, perhaps, mistaken in participating in legislation intended to benefit the people of the United States. Such legislation cannot be based upon ignorance and emotions.

American people desirous of removing from our economy the curse of the com-

mercial employment of immature children, as the great mass of the American people, including the manufacturers, are desirous, will find Senator Beveridge's oration valuable in the fact of its indisputable evidence that the evil has not and cannot be cured by legislation, and that one of the reasons is that legislation in the several States has been promoted by just the sort of ignorance, misinformation and exaggeration as that condensed so effectively for and by Senator Beveridge.

#### DANGER TO THE COUNTRY IN AGITATION AGAINST RAILROADS.

From three different correspondents the MANUFACTURERS' RECORD has recently received expressions about the railroad situation worthy of the most serious consideration on the part of the masses of the people, who are, after all, responsible for the lawmaking of the country. Mr. J. W. Oglesby, president of the South Georgia Railway Co., writes from Quitman, Ga.:

If I had a million dollars, I would not build a mile of railroad in this United States under the present conditions of legislation and public sentiment, and it looks strange to me that anybody would build one with any intention of ever getting profit out of his investment.

Mr. James M. Barr of Norfolk, Va., formerly of the Seaboard Air Line Railroad, writes:

I am out of the railroad business. The people of this country do not realize the obligations they are under to the railroads, and in consequence are damning them from one end of the country to the other because they have not kept pace with the growth of the country and provided adequate facilities to move efficiently its enormously increased traffic. There are good business reasons, as you know, why they have not done this. Can you not present these reasons in a clear, concise and forcible paper in our journal to the public? If yes, I believe it will do great good.

If the attitude of the public toward the railroads is not changed, I am unable to see who will provide the necessary money to furnish the additional facilities which the constantly-increasing traffic of the country demand. The popular belief seems to be that the owners of railroads should provide money to build them and then turn them over for public use under Government regulations. Neither you nor I would care to put up money for an enterprise in the management of which we were deprived of voice by statute. It seems to me that this is the exact situation in this connection in its last analysis.

Mr. E. L. Propst, president of the Propst Contracting Co. of Charlotte, N. C., writes:

As your journal is recognized as the foremost industrial newspaper in the country, and has done a great deal toward the advancement and prosperity of the country, especially the Southern States, I enclose you a letter published in the Charlotte *Observer* and written by Mr. C. W. Hunt, and I ask that you publish same at my request. It seems that the lawmakers are determined to cripple the goose that lays the golden egg. We need more railroads in the country, better equipped roads than we now have to handle the freight and passenger traffic, and if rates are cut and the railroads are not allowed to make legitimate profit, how can we expect any further improvement, and what inducement will there be for moneyed men to make further improvements or furnish funds for same? The State that makes the most liberal laws in favor of the railroads will, in my opinion, have the best service and most improvements. I think it is time for business men in the South to speak on this important question, and not let a few political men retard or hinder the great prosperity and future development of the country.

The letter of Mr. Hunt referred to by Mr. Propst is as follows:

The railroads in North Carolina should not be oppressed at this time by reducing rates and fares.

I write the above fully aware that I would be lonesome in many places in saying that much, yet it does not alter the case, nor does

it signify that any railroad or other corporation has put money on me, or that I am under obligation to anybody, as some would charge. The truth is there is not a railroad official in North Carolina or elsewhere that knows me when I am met. That being beyond controversy, I am at liberty to write and to be read without prejudice.

It has been boasted that the present body of lawmakers is above the average in intelligence and general information (the latter is worth much), and for that reason it is to be hoped that conservatism will rule and nothing will be punished, per se, because it happens to be a corporation. No great development can take place without the corporation, the putting together of wealth.

To my finite mind there is no need of mad legislation against the railroads at any time, and at this time especially it seems to me to be the most inopportune time in the history of the State to set about cutting off the income of the railroads. Every businessman, or every man who knows the first principles of the business world, knows that every system of roads in the State is in a manner tied up with the country's unusual prosperity, and that all of them, and the Southern Railway in particular, are spending millions of dollars in better equipment to handle this business; and that it is impossible for the business to be handled with dispatch till more tracks and larger terminals are built; and to me, a common, decent citizen and lover of fairplay, it seems suicidal to take away from the roads any part of their income at such a time. Were this work being done with an accumulated surplus, it would be different, but it is all being done on borrowed money and the value of stock is going down on account of the vast expenditures for future work.

Why run roughshod over anything when the facts and figures show a title to respect at least? Has it not been shown that the business, the earnings of the roads will not admit of a sweeping reduction, when compared with rates and population in other States?

North Carolina legislators cannot afford to oppress anything that helps the State, and every man in the body should have that first in mind—the good of the State and its industries.

Most people have already forgotten the case of the Secretary of State, Mr. Grimes, against the Southern Bell Telephone & Telegraph Co., wherein it was claimed that rates were higher than there was justification, but the Corporation Commission, after seeing the books of the Bell Company and the books of some of the defunct home companies which the Bell had bought, refused to lower the rate.

In the name of justice and the good name of North Carolina for fairness to everything—life, property, privileges—let the action of the Corporation Commission be their guide in the proposed legislation. Hear and weigh the figures, facts and principles involved.

North Carolina's lawmaking body cannot assume the responsibility of checking and setting back the development being wrought by the railroads at this time.

I assume that the figures given out are in the main true, and they show that it will be oppression to make the laws proposed, and there is no law of right that allows anyone to be forced to do business at a loss. If it is done it is done by might and in the face (as I see it, I hope, unclouded) of the state's best interest.

Our undeveloped wealth is untold—in farm, in factory, in happy people—and for the lawmaking body of a State to fly in the face of such and cripple the main developer of these things is worse than suicide, for the suicide kills himself only, but unwise laws can kill the happiness and prosperity of untold thousands.

Lower rates of freight and passenger fares will naturally come in a few years, and North Carolina can afford to wait; besides, if there is any clamor among the common people for radical reductions, I have not heard it, and I believe voice the sentiment of a vast majority of business interests when I say no reduction is wanted at the price of crippling the railroads in any way.

Hands off, and let the great work of building double tracks, new terminals and securing better service go on till the business of the State can be handled, and let the roads have all they are now getting to help do the work the faster.

I am devoid of prejudice; I write from the standpoint of fairness and good to all, the growth and development of the State in particular.

The whole State is prosperous; let the lawmakers be wise enough to maintain that condition by doing the railroads no violence now.

This letter of Mr. Hunt and those similarly quoted are but evidences of

the development of a healthy public sentiment, which, if properly encouraged, will put an end to the hysteria which has during the past four or five years been sedulously cultivated against the railroads and other corporations. Instead of enforcing laws in accordance with well-defined and long-tested principles of law, fully capable of meeting properly any emergency, resort has been had to what may be styled opportunist legislation thrown out in response to demands of the mob mind that acts for the moment and to one point and disregards constitutional provisions designed to prevent the ills of government by mob.

It is a fact that the railroads of the country are the great development agencies of the country, and had it not been for them the country would not now be facing the situation of a development with which the developing agency has not been able to keep pace. That inability may have been, in the case of some few railroad systems, a perfectly natural consequence of subordinating the interests of the people and the territory served by the roads to the interests of the few controlling owners, influenced by the insane policy of squeezing for extraordinary immediate profits, instead of providing for reasonable profits in a long future. But for the great number of railroads, and especially for those operating in the South, the inability has been a result of the unparalleled development of resources which make traffic for the railroads accompanied by the physical impossibility, even with the wisest foresight, of providing against such increased demand. The railroads, in fact, are but notable illustrations of the situation, not only in the United States, but in other parts of the world, of civilization calling in vain for means to give it full enjoyment of the opportunities which its own agencies have created. The situation will not be bettered by agitation against existing agencies, whether the agitation be born of an honest sense of injury, of deliberate demagogic, of desire to be constantly in the public eye, of sincere but mistaken purpose to right things, or of plain madness. Railroad conditions demand immense sums of money for their remedy, at least \$5,000,000,000 within the next few years, as the MANUFACTURERS' RECORD has frequently pointed out. Few millions, even, will be forthcoming as long as the railroads are menaced by legislation that will render investments in railroads unprofitable.

#### SHOULD BE SUSTAINED.

It is hoped that the immigration conference called for today at Columbia, S. C., by Mr. J. C. Hemphill, editor of the *Charleston News and Courier*, will cause the General Assembly of South Carolina to take a businesslike view as to maintenance of the immigration work for the State in which Commissioner Watson has been so effective. This year's Assembly has indicated a purpose not to increase the appropriation for the work, an increase earned over and over again by results already recorded. It will be a pity if the hands of Commissioner Watson are not strengthened by the State and that he should be hampered in his efforts to expand operations so successfully inaugurated by him and promising such material good for South Carolina. Perhaps the conference at Columbia may result in a large contribution from private sources of money to enable the work for immigration to be continued properly.

Congressman W. A. Calderhead of Kansas, writing regarding a pamphlet by the editor of the MANUFACTURERS' RECORD on recent progress in the United States, says:

I must beg your pardon for this tardy acknowledgment of the pamphlet, "America's Amazing Advance." I have carried it with me on a long journey and read it to others with pleasure. I must also congratulate you on the good work of the MANUFACTURERS' RECORD in these days of general fault-finding. You are doing the country better service by publication of broad and correct views in every issue. I wish you abundant success and the joy of seeing your work bear fruit.

#### UNCLE REMUS'S MAGAZINE.

Men and women and children who love the sweetness of life distilled through literature are on tiptoe of expectation for the appearance April 15 of the first number of *Uncle Remus's Magazine*, an illustrated monthly edited by Joel Chandler Harris. His presidency of the tripod in this undertaking is the guarantee that it will appeal to all lovers of the good and the true and the pure, and that it will be as welcome in Boston, Mass., as in Beaumont, Texas; in Tallahassee, Fla., as in Portland, Ore.; in the hut of the humble as in the palace of the prince. With his own pen alone Uncle Remus could make a successful go of a monthly magazine, but he does not propose to limit his periodical in that way, and has already arranged for contributions and illustrations from the cream of the pleasure-giving writers and artists of the country, among them James Whitcomb Riley, Thomas Nelson Page, F. Hopkinson Smith, John Fleming Wilson, Will N. Harben, Ruth McEnery Stuart, Charles G. D. Roberts, Maarten Maartens, Ralph D. Paine, John Fox, Jr., Owen Kildare, Carolyn Wells, Harry Stilwell Edwards, Virginia Woodward Cloud, Charles Battell Loomis, Frank H. Sweet, Robert Barr, Clarence Ousley, Frank L. Staunton, Andrew Carnegie, Dr. R. J. Massey, Grace MacGowan Cooke, Charles L. Bull, Charlotte Harding, Clarence Underwood, Julius C. Harris, Alice Beech Winter and Maud Thurston.

#### THE COTTON MOVEMENT.

In his report for February 15 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 168 days of the present season was 10,517,967 bales, an increase over the same period last year of 2,122,429 bales. The exports were 5,937,469 bales, an increase of 1,584,711 bales. The takings were, by Northern spinners, 1,825,828 bales, an increase of 197,034; by Southern spinners, 1,377,200 bales, an increase of 73,513 bales.

#### The D. A. Tompkins Company.

The MANUFACTURERS' RECORD is advised by telegraph that the D. A. Tompkins Company of Charlotte, N. C., will transfer its general foundry and machine plant for building and repairing machinery to the American Machine & Manufacturing Co., which is being organized to have a capital stock of \$250,000 and with J. W. Conway as president. The shops at Dilworth will be extended and other buildings will be erected to provide for transferring the entire machine and repair enterprise to that suburb, and operations will be continued on an enlarged scale. The D. A. Tompkins Company has heretofore not only built machinery, but also held interests in cotton mills and oil mills. It will in future be more of a holding company by its interest in manufacturing plants. Mr. D. A. Tompkins will continue to be personally interested in the management of both companies, will be the consulting engineer of the new company and will besides engage in general consulting engineering.

## LUMBER CONDITIONS IN THE SOUTHWEST.

[Special Correspondence Manufacturers' Record.]

Rusk, Texas, February 18.

The outlook for the lumber business in the Southwest for 1907 presents some unusual features, but on the whole promises a prosperous year. Taking the big mills of Arkansas, Louisiana and Texas as fair examples of others all over the Southwest, and it is found that probably never before was there so much lumber on sticks and in dry sheds as there is today. Two causes have contributed to this congested condition. First, beginning back as early as last July or August, the immense grain crop of Kansas, the Territories and North Texas occupied the attention of all trunk railroads, to the exclusion of almost every other product of this section, putting into active service every available freight car. Before that was disposed of the large cotton crop of the Territories, Louisiana and Texas came in for attention. In every locality where merchants had been dependent on a credit custom they were vitally interested in seeing the producers get returns from their crops as speedily as possible; hence there was no disposition to interfere in this monopoly of freight cars by the farmers' products. But for the sawmill man this produced what to him was a regular car famine.

The next cause was the unusually favorable weather which has prevailed throughout this section for the past six months. During a residence of 25 years in East Texas the writer has never seen a fall and winter more favorable for the manufacture of lumber, and the mill man who did not take advantage of this to make lumber to the utmost capacity of his plant ought to go out of the business. The record shows, however, they pushed their mills to the limit.

Thus, while mill men could not ship lumber, they could and did make it, and February 1 found fully 90 per cent. of the mills in this section with the largest stocks on hand ever known before. Not only has that been the situation for months past, but it continues, with little indications of any change, and still the work of piling up millions of lumber goes on.

While weather conditions favored the manufacture of lumber, it has also been favorable for building new mills and enlarging and remodeling old ones. During the 12 months ended December 31 last 162 new mills of large capacity were built in the States of Louisiana and Texas alone, with prospects of an increased number being built during the present year. In addition to those new mills, there were quite a number of old ones destroyed by fire during the same period, and in each instance they have rebuilt on much larger scales. Two notable instances of this kind are the Angelina County Lumber Co. and the Lufkin Land & Lumber Co.'s plants of Lufkin, Texas, both of which were burned last year and have been replaced with new mills of strictly modern equipment in every appointment, while their capacities are at least doubled.

In the meantime the number of mills ranging from 10,000 to 30,000 daily capacity which were erected during 1906, and which are not reckoned with mills of large capacity built during the same period, by far exceeds the number of large ones built. For instance, in one East Texas county alone more than 20 such small mills were put in operation during last year. As a rule, these small mills do not belong to any lumbermen's association, consequently their cut is not reckoned in the annual reports of such bodies, and yet they amount in the aggregate to several million feet which enter into the lumber traffic of this section. Take Cherokee

county, Texas, as an example of what these small mills are doing, and it is easy to see that an immense amount of lumber finds its way into the markets of the Southwest from their saws. In that county there are something over 30 of these small mills, not one of which will exceed 30,000 per day. Ten thousand a day per mill is a conservative estimate for these mills, and allowing that they will run five days each week they would give for this one county a cut of 7,500,000 a year.

When we consider the question of output of these small plants in connection with that of the large ones, the combined output of the Southwest becomes something immense. According to statistics compiled by the Yellow Pine Manufacturers' Association at its meeting recently, there are 669 mills of large capacity in the yellow-pine belt west of the Mississippi river, with an accredited output for the year 1906 as follows:

Missouri, Arkansas and Indian Territory, 124 mills; output, 1,333,418,000 feet; an average of 10,753,370 feet per mill.

Louisiana, 352 mills; output, 2,602,731,922 feet; average, 7,394,124 feet per mill.

Texas, 193 mills; output, 1,931,690,510 feet; average, 10,008,760 feet per mill for the year, making a total production for the 669 big mills of 5,867,840,432 feet, or an average of 8,771,061 feet per mill.

There is no means of accurately estimating the cut of all the small mills of this territory, but some well-informed mill men say a conservative estimate would put the grand total of both large and small mills at something above 10,000,000,000 feet for the year 1906. To convey all this lumber to market would require 500,000 cars carrying 20,000 feet each. If those cars could be strung out in one continuous line it would reach from New York city to San Francisco, then back to Chicago and have enough left to reach up to Milwaukee.

When the above facts are considered in connection with the large farm products of this same section we need not marvel that we are beset with a car famine. Indeed, isn't it remarkable that railroads have done as well as they have?

At a glance it might seem that at this rate the merchantable timber of this section would soon be a thing of the past, but before coming to that conclusion let me remind the reader that there is a belt of country running north along through Eastern Texas and Western Louisiana, from the Gulf of Mexico far up into Arkansas, which will probably average 150 miles wide and which contains some of the finest pineries in the United States. This strip of country comprises an area of approximately 50,000 square miles, or exceeding that of the seven States of Connecticut, Delaware, Massachusetts, New Hampshire, New Jersey, Rhode Island and Vermont, with their population of 7,000,000 or more people.

Within the last 30 days some big timber deals have been made in Southeast Texas and Western Louisiana. Among these may be mentioned one by Jesse Jones of Houston for 8000 acres of long-leaf pine in East Texas for which he paid \$400,000. The Lufkin Land & Lumber Co. of Lufkin, Texas, purchased a pinery estimated to cut 150,000,000 feet. The Industrial Lumber Co. of Beaumont closed a deal for 50,000 acres of long-leaf pine in West Louisiana, and will erect a modern mill of large capacity to cut it.

During the past six months two things have contributed to make conditions favor-

able for the sawmill man for the ensuing year. First, their inability to ship stock during that time has resulted in accumulating an immense amount of dry lumber at mills, thus putting them in fine condition to fill orders as soon as the car shortage lets up sufficiently. Second, the very fact that mill men could not get cars to enable them to make shipment has resulted in badly broken stocks at all retail yards in the territory supplied from this quarter, thus making it necessary for retailers to lay in a large amount of stuff to bring stocks up to a normal condition.

There is still another matter which enters into the question of the retailers' stocks. That is the heavy immigration to the Southwest during the past two or three years. During all the history of this portion of the United States there has never been known before such a rush to Oklahoma, Indian Territory and Texas as during the period mentioned. Nor is that all. For two or three years past crops have been record-breakers, and people who came to those sections in time to open up land and make crops find themselves in a position now to make substantial improvements on their farms, and this calls for an immense amount of lumber. All these conditions conspire to keep up prices, and as a result the tendency has been and is yet upward for all grades of lumber.

In the meantime the export business has been on the increase, and now has reached a volume which makes it a factor to be reckoned with. Large amounts of yellow pine, cypress and several varieties of hardwood are constantly leaving both Louisiana and Texas ports for foreign countries. The Industrial Lumber Co. of Beaumont recently booked an order for 12,000,000 feet of pine for Mexico. This order is to be shipped by rail, and will require about 1000 cars to handle it.

Just what the Panama Canal building will do for Texas mill men cannot be foreseen yet, but as the trend of all business for that great enterprise appears to be toward the Atlantic seaboard towns, our mill men are not counting on getting much from that source. Indeed, they do not need it, for their territory is ample to consume their product, and the only reason why they should desire any of that trade would be to stiffen prices a little. What they are most interested in just now is to be able to move their stock, for not a mill man in all this section but has orders to take nearly everything on his yard and all he can make for the next few months. There is every reason to look forward to relief in transportation matters soon. The Southern Pacific Railroad people promise to release nearly 1000 cars at Galveston soon, which have been doing warehouse duty there for cotton merchants for months past, and it is hoped other roads will follow this example, which will soon result in relieving the situation.

W.M. C. CLODY.

At a meeting at Franklin, La., the State executive committee of the Inland Waterway League, which is fostering the building of intercoastal canals to connect certain waterways in Louisiana and Texas, it was decided to appoint subcommittees in the 10 or 12 counties in both of the States to co-operate in the work and to raise funds to assist the committee in furthering the projects. The rivers and harbors committee in Congress has approved the construction of an intercoastal canal as far as Mermentau, and Secretary Leon Locke was instructed to have prepared maps, surveys and estimates for completing it as far as Sabine Pass and to send this, with other important data, to the State's representatives in Congress for the purpose of having the entire work authorized if possible.

## RAILROAD RATES ON SOUTHERN COTTON GOODS.

[Special Correspondence  
Manufacturers' Record.]

Augusta, Ga., February 18.

Papers in one of the most important cases that have ever been filed before the Interstate Commerce Commission were forwarded from here Saturday, and will be put on record in Washington today. Attorney R. J. Southall, representing the great trading companies, viz., the China & Japan Trading Co., Ltd., American Trading Co., A. Norden & Co., Arnhold, Kahrberg & Co. and Fearon, Daniel & Co., all of New York, brings suit against the following transportation companies: Georgia Railroad Co., Central of Georgia, Southern Railway, Atlantic Coast Line, Atlanta & West Point, Western & Atlantic, Western of Alabama, Charleston & Western Carolina, Columbia, Newberry & Laurens, Chesapeake & Ohio, Illinois Central, Louisville & Nashville, Nashville, Chattanooga & St. Louis, Seaboard Air Line, Mobile & Ohio, Texas & Pacific, Missouri, Kansas & Texas, Atchison, Topeka & Santa Fe, Southern Pacific, Great Northern, Northern Pacific, Union Pacific, Oregon Railroad & Navigation Co., Oregon Short Line, Canadian Pacific, Great Northern Steamship Co. and Occidental & Oriental Steamship Co.

The petition states that the China & Japan Trading Co., a corporation under the laws of New York; American Trading Co., under the laws of Maine; A. Norden & Co. of New York, Arnhold, Kahrberg & Co. of New York and Daniel, Fearon & Co. of New York are engaged in the purchase and shipment of cotton goods from Southern cotton mills at Fries, Va.; Greensboro, N. C.; Graniteville, S. C.; Augusta, Ga.; Alabama City, Ala.; Stonewall, Miss.; New Orleans, La., and Itasca, Texas, and many other Southern points, shipping goods between said points via Pacific coast terminals to points in China and Japan. The complainants claim that the defendant companies named are common carriers engaged in the transportation of property by continuous carriage or shipment, partly by rail and partly by water, as their various lines may run between said points in the Southern States and Japan and China, and that they are subject to the provisions of the act to regulate commerce approved February 4, 1887, and amendatory acts thereto, and especially the act of June 29, 1906, to enlarge the powers of the Interstate Commerce Commission.

In the course of their business the complainants aver that they are always making through shipments of goods from the Southern points to Oriental points, for which they pay a common price of \$1.25 per 100 pounds freight. Their claim is that the rate is excessive, inasmuch as the same class of goods is shipped from Biddeford, Maine; Manchester, N. H.; Lowell, Holyoke and Salem, Mass., and other points in New England for a charge of only 85 cents per 100 pounds freight. The shipments from New England are made by the same companies, and the route is much longer, yet there is a discrimination of 40 cents per 100 pounds in favor of the New England mill centers.

Therefore the companies engaging in the Oriental trade and shipping goods from Southern mill centers have been charged excess freight to the amount of more than \$1,000,000, and the petition asks that the Interstate Commerce Commission cause the railroads and transportation companies to make reparation.

After this comes the main feature which will play such an important part in the development of the South in the future. The commission is asked to give the same common rate to Southern mills as is given to the New England points where cotton

manufacturing is carried on. It is claimed that such a discrimination is in direct violation of the act to regulate commerce, and that it tends toward an unreasonable preference, giving an advantage to New England points, and consequently working to the detriment of Southern mills.

The transportation companies are required to make immediate answer to the charges contained in the petition or suit, and that they be required to pay back to the complainants a just and equitable amount which has been collected in excessive freight charges, and that a maximum freight rate for future transportation of all goods transported be established. A further order is asked fixing such rules and regulations as will in the future operate to prevent the continuance of exactations, unjust discrimination and undue and unreasonable prejudice or disadvantage to complainants and their traffic in cotton goods and such other orders as the commission may deem fit and proper as the case may require.

The case is one involving the greatest imaginable interest to the cotton-manufacturing business in the South. The number of bales of cotton manufactured in piece goods for trade with the Orient in 1896 was 212,560, and this had grown to 312,165 bales in 1906. Of this amount, three-fourths of the shipments are made from Southern points, so that Southern mills are more interested in the case than any others could possibly be, even if the New England mills were not given a preference in rates.

The stupendousness of the project is almost beyond comprehension when it is taken into consideration that the development of the cotton-manufacturing business in the South has just begun. In the future this amount of excess freight would gradually increase as trade with the Orient increased, and would soon amount to an incomprehensible figure. As it is now, the sum of excess freight for which the trading companies are making claim amounts to more than \$1,000,000.

All the mill presidents in the South are backing up the fight of the trading companies, and they are confident the case will be won without any trouble. There are now several cases pending before the commission asking for lower freight rates to Eastern points, New York, Philadelphia and Boston, on cotton goods, and they are also confident that this will be granted. R. J. Southall, the man who is behind the suit as legal man, is well known in the South. For a number of years he was connected with the legal department of the Richmond & Danville Railroad, and later with the Atlantic Coast Line. His first big case in the present line was a case against transportation companies brought by Augusta cotton mills, and an injunction was secured whereby water rates were secured on all shipments via Savannah river from here to Northern points.

The injunction was then made permanent and a suit was filed to recover excess freight paid out, and many thousands of dollars were recovered. The suit now pending is one similar in character to the river shipments. In addition to collecting the excess freight charges, the differential rate was established on the Savannah river and is now in force.

The next suit was the recent Interstate demurrage case, which was argued before the Georgia Railroad Commission and was won when most of the judicial talent thought it would go otherwise. This case gives the Georgia Railroad Commission the same powers over the interstate shipments as it does over the State shipments.

Working almost in conjunction with the

case now in point there are half a dozen leading Southern cotton-mill companies pushing a similar case for excess charges to Pacific coast terminals.

Every cotton mill in the South, and consequently all the leading shipping and mercantile companies with export trade to the Orient are interested and will watch the developments from the start. The fact that an Augusta attorney has been employed will lend unusual significance to the matter, as he is intimately acquainted with the situation in the cotton-goods trade in this section, and is prepared to fight the case all through its various stages.

A few leading shipping and business men who were put on the inside of the matter in Augusta Saturday expressed themselves as being favorable to the establishment of a freight bureau in the city, and they declare it would save the business men and shippers ten times its cost if it should be organized.

It is quite probable now that a movement of this character will soon be put on foot and the bureau here will become a reality. Other leading cities have established bureaus, and they declare that they save seven to ten times the cost of maintaining.

J. C. McAULIFFE.

### Rockingham Power Development.

It is stated that steady progress is being made with the construction work on the water-power development of the Rockingham Power Co. near Rockingham, N. C. Referring to this progress a dispatch from Bennettsville, S. C., says:

"Within a little more than a year the cotton mills at McColl and Bennettsville will be operated by water-power from the dam across Pee Dee river at Blewitt Falls.

"The power will be transmitted by electricity. The line of wires will run from the plant to Rockingham, thence by Hamlet to Laurel Hill, thence to McColl, Bennettsville, Lumber, Floyds and Hartsville, with a branch line from Laurel Hill to Laurinburg.

"The dam is to be 1650 feet long and 50 feet high, from which it is calculated by the engineers that 28,000 horse-power will be available. The present installation of water-wheels and electrical machinery will deliver 15,000 horse-power.

"The company has already contracted for 10,000 horse-power. The cotton mills at McColl and Bennettsville will use 1600 horse-power. The contract provides that it shall be ready for use by July 1, 1908.

"A force of engineers has been in the county several weeks locating and constructing the line. Mr. Eric Norden of Wilmington, consulting engineer, is in charge of the work. He has been assisted by two engineers from Boston, Harry L. Kimball and E. V. Cartland. The company also has two attorneys here obtaining rights of way, drawing up papers, etc. They are James MacRae, Jr., and W. R. Tyree, both of Wilmington.

"The transmission line enters Bennettsville on the south side of the Coast Line Railroad, and passes out near the cotton mill. It could connect with the city's electric-light plant without coming into the corporate limits. There has been some talk of getting the Rockingham Power Co. to supply electricity for lighting Bennettsville, but no contract has been made.

Arrangements have been completed for the annual meeting of the National Association of Cotton Manufacturers to be held in Boston, Mass., on April 24 and 25. Numerous papers will be read by members and addresses delivered by guests of the association.

A dispatch from Brimstone, La., says that a shipment of 19,000 tons of sulphur has begun from that point, the greater portion of it bound for European ports.

## DEVELOPMENT IN PIEDMONT SOUTH CAROLINA.

[Special Correspondence Manufacturers' Record.]

Greenville, S. C., February 15.

That there has been wonderful improvement in conditions in the Piedmont section of South Carolina in the last few years has become known abroad, but intimate knowledge or idea of what has really been accomplished is doubtless lacking among those who have not been in actual contact with the section concerned. Even those living here are often astonished at facts and figures presented them, most probably because the change has been general, healthy and natural and possessed of no spectacular features during its transpiration.

The growth of the city and county of Greenville, lying in the center of the "up-country," or Piedmont section, may be taken as a fair sample of what has been enjoyed throughout Northern South Carolina, although it may be said that in some respects there has been more pronounced advancement in this vicinity than in others. The change for the better has not been confined to this neighborhood alone; the counties of Anderson, Pickens and Spartanburg, with their cities of the same name, together with many of the smaller towns, have enjoyed remarkable prosperity.

As an indication of conditions the land market furnishes a safe guide. It may be set down as true that the farmer is doing well when he is found investing in real estate and adding to his holdings. Of late there has been a marked activity among the farmers in this respect, although land is high. Conservative estimates place the price of land hereabouts now as being from 50 to 100 per cent. higher than in 1897, if not in 1900. The following figures will serve to illustrate: In the city and county of Greenville the total value of taxable property in 1900 was \$7,177,555. In 1906 this total was \$11,918,570, an increase of \$4,741,015, or 66.05 per cent. In the year 1905-1906 this increase was 16.56 per cent. According to the tax books, land in Greenville county increased in value from 1900 to 1906, 22.61 per cent., and buildings 125.23 per cent. The value of real estate in cities, towns and villages grew 59.20 per cent. in the same period. Personal property increased 104.71 per cent. in value. The value of real estate in Greenville city increased 54.75 per cent. from 1900 to 1906, and 34.15 per cent. from 1905 to 1906. There having been no new assessment recently, it is likely that these figures should be even more encouraging and astonishing.

Greenville city, over all, has population of some 30,000. In 1906 there were paid out in wages \$2,250,000. The banks and cotton mills of the city and county paid out in 1906 dividends in an amount exceeding \$541,300, an increase over 1905 of over \$42,000. Anderson county and city paid out dividends approximating the same amount. The combined capital, surplus and undivided profits of Greenville banks, as per December, 1906, statements, was \$971,912.04, with individual deposits amounting to within a trifling distance of \$2,000,000, the increase in 10 years being something like 200 per cent. Two new banks started in 1906 showed in December capital, surplus and undivided profits of \$156,140.08 and deposits aggregating \$263,496.34. In the city in 1906 permits for new buildings and improvements to old amounted to \$307,363. The year showed an increase of 20 per cent. over 1905 in the number of solid cars of freight in and out of the city. The figures relating to Greenville are quoted because they are at hand and convenient. In other sections of the Piedmont, as stated, the record has doubtless been proportionately as satisfactory and gratifying.

For long years there has been talk of railroads to be built between this or that point in this territory or from points in this section to the coal fields in Virginia or Tennessee. Of late this talk appears to be becoming a bit more definite. The course of the South & Western now forging through the mountains of North Carolina from Tennessee after it reaches the South Carolina line is being speculated upon, but none speaks with certainty regarding it. Engineering corps encountered in the neighborhood of Blacksburg have given rise to the opinion that this road will connect at that point with the old Three Cs, the line belonging now to the Southern system and extending from Marion, N. C., to Kingville, S. C. This is thought to be substantiated by the persistent rumors of the acquirement of the Three Cs by the Seaboard Air Line.

Nearer home to this immediate section is the proposition to build from Greenville to Greenwood, a distance of some 53 miles through a magnificent farming country. Mr. H. H. Prince, the promoter of this enterprise, states that he hopes to be able to give out his plans regarding the line in the near future. For the present it may be said only that although there are already two lines now in operation between this city and Greenwood, it is held that the business is of too great a volume for the two to handle, and that the third is but the natural outcome of the crowded conditions. Greenwood is an important point lying on the Southern, the Seaboard Air Line and the Charleston & Western Carolina railroads, the last named bringing to Greenville the business of both the Seaboard Air Line and the Atlantic Coast Line. Thirty-five miles of this proposed road would lie in Greenville county.

A line known as the Greenville & Knoxville is now being constructed out of Greenville, with tracks laid to within a short distance of Travelers' Rest, about 12 miles. Some of its equipment has been ordered, and trains will be running in the next few months. Just how far the line will extend is not known. It will, however, reach a splendid country now without outlet, and will develop fine timber properties. Messrs. W. H. and D. C. Patterson of Atlanta, Ga., are the promoters.

At this writing the Legislature of North Carolina seems likely to act favorably upon the proposition of Mr. S. A. Jones of Waynesville, that State, to build a line from Knoxville, Tenn., to Greenville, S. C., and from Waynesville, N. C., to Rutherfordton, N. C., if the State will guarantee 4 per cent. interest on the bonds to be issued to cover the cost of construction and equipment. The State is to receive 51 per cent. of the capital stock, representing 51 per cent. of the net earnings, in return for this obligation. It would also have representation and voice in the management of the road and the shaping of its policies, as well as control of the terminals at Knoxville, Rutherfordton and Greenville. This line, it is claimed, would lessen the distance between Knoxville and Greenville by 80 miles, and mean a saving of many thousand dollars to shippers and consumers, while opening up new and wide resources now practically undeveloped.

It is believed by many that the electric line being constructed between Anderson and Belton will be brought to Greenville, and that its route will be parallel with that of the Southern Railway between Belton and this city. This opinion seems to be founded on reports emanating from the promoters. The line would traverse a splendid farming and manufacturing country.

Taken altogether, the outlook in this

section is most hopeful. Real estate transactions are numerous, with prices tending upward. Farm products are commanding

constantly higher prices. The open winter has meant little or no hardship, and money appears plentiful.

JOHN WOOD.

## ON THE BEARING OF RAILWAY EMPLOYES.\*

By PRESIDENT W. W. FINLEY of the Southern Railway.

Your duties bring you into personal and daily contact with the people along the lines of the Southern Railway, and I, as one who has filled positions which some of you are now filling, propose to speak to you briefly of the relations of freight and passenger agents to the public. Your duties are of a twofold nature. You owe duties to the railway company by which you are employed, and you owe duties to the public. These double duties do not in any way result in conflict or divided allegiance, for he serves the railway best who serves the public best.

The general officers of a railway have, unfortunately, too few opportunities for meeting and talking with the people who are dependent upon the road for transportation services. The man having business relations with the road, as a rule, comes into personal contact with the local representatives of the traffic and operating departments.

The policies of the railway are formulated and mapped out by the general officers, but the application of these policies to specific transactions must be entrusted in the main to men in the field. It follows, then, that you have in a substantial sense the reputation of the Southern Railway Co. for fair and just dealing in your hands. Whether the company shall be popular or unpopular depends in very large measure upon your attitude toward the public and upon your treatment of those doing business with the road. It is of supreme importance, therefore, that you, who daily come into intimate personal contact with the public, should bear in mind constantly that it is the unvarying policy of the company to be just and fair to all alike—to the small shipper and the occasional traveler as well as to the large shipper and the regular traveler; that you should be perfectly frank in all business dealings; that you should always be considerate and patient, and that you should do all in your power to make the services of the road satisfactory to those for whom they are performed.

All classes of the public should be treated with consideration and be given every possible and reasonable accommodation. Even the man who makes impossible or unreasonable demands should not be dismissed with a curt refusal. He may not know that what he asks is either impossible or unreasonable, and a few words of frank explanation pointing out to him why his wishes cannot be complied with may send him away a friend of the road instead of a faultfinder. While everything possible should be done for the accommodation of those doing business with the road, care should be exercised not to promise the impossible in the way of facilities or services. When failure to fulfill such a promise follows, the man who made it may be able to shift responsibility to the operating or some other department or officer, but the damage done to the reputation of the road cannot be easily remedied. Questions that seem to you to be trivial may be considered of much importance by the persons asking them, and they should be answered with patience and courtesy.

The efficiency of the service as a whole depends upon the efficiency of each individual official and employe. Every agent and employe should study his duties in detail and should understand thoroughly just

what he is to do in any contingency that may arise. He should then neglect no detail of his duties, however unimportant it may seem to him, for no matter how carefully and minutely duties may be prescribed by the general officers, the neglect of some apparently minor detail may lead to serious or possibly disastrous results. Of even more importance than a careful observance of duties prescribed by the company is obedience to law. Many of the relations between the railroads and the public are now regulated by Federal and State statutes, and every official and employe of the Southern Railway Co. must understand that its business affairs are to be conducted at all times in strict accordance with the laws of the land. No transaction or practice that is forbidden by the laws can be permitted, and as I am sure you all understand, there must be no resort to evasion of any kind.

As representatives of the Southern Railway Co. you should bear in mind at all times the basic fact that the interests of the railway and of those served by it are identical, and that they are inseparably interwoven. The railway can prosper only as a result of the prosperity of communities by which the demand for transportation is increased, and the prosperity of the South can continue and can be brought to the highest possible level only through adequate and efficient transportation facilities. At the present time, when every effort is being made to supply additional facilities and more efficient services, nothing is more important than that the truth of this proposition should be realized by men in all lines of business. When once this identity of interests is thoroughly understood the railroads of the South and the people will be brought together in more harmonious co-operation for the development of the natural resources of the South and for the expansion of all lines of industry. The men in the freight and passenger departments are in a position to do much to bring about this mutual good understanding and this harmonious co-operation for the upbuilding of the territory traversed by the lines of the company. Your careful attention to the wants of the people and your considerate treatment of everyone having business with the road will serve as a constant object-lesson of its interest in the individuals and communities along its lines.

My personal experience convinces me that the people, as a rule, are fair-minded, and when fully informed can be relied upon to deal justly with the transportation interests.

I feel sure that it is only necessary to direct your attention to the importance of your relations to the public, and that we shall have your loyal support in carrying out what is the policy of the company—the building up of a thoroughly efficient transportation system on the solid basis of harmonious relations with the people along its lines.

There is another point to which I desire to call your especial attention:

The management of the Southern Railway has been confided to us as a high and sacred trust. This trust is not confined to the president, the general officers or the board of directors. It applies with equal obligation, in his sphere of action, to the humblest employe as it does to the highest. Each has his duty to perform, and in the performance of that duty he represents the

\*From an address at Atlanta to representatives of the freight and passenger departments of the Southern Railway Co.

railway and is engaged in the performance of a trust in respect to it. The brakeman cannot perform the president's duty, nor can the president perform the brakeman's. Each must do faithfully his own duty, and only in the honest and faithful performance of duty by all can there come a proper measure of success.

The railway and the public are entitled to the very best that is in our employes, from the highest to the lowest—they are both entitled to demand that there shall be no lukewarm or limited service, but that the heart of our employes shall be in their work. All of us have voluntarily undertaken a duty in respect to this property, and the railway and the public should receive from each of us full and faithful performance.

I wish to build up among all our employes a spirit of interest and co-operation—a spirit in which each man will recognize that he is identified with the railway and will earnestly and honestly work for its welfare. Only in this way can we successfully administer the trust which has been confided to us.

#### THE BIRMINGHAM DISTRICT.

##### An Explanation of Certain Iron Quotations.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., February 18.

But a little while back it was stated in these letters that some Scotch iron bought last November was due to arrive at an early date in this country and was consigned to Eastern and Southern ports. It was stated that the amount to each port was so insignificant that it would hardly affect quotations of American iron. The sum total was 40,000 tons or less. It was all placed before it left Great Britain. But the buyers saw a profit in a resale of purchase and the Illinois Central worked to their aid by making a special rate of \$1.60 from New Orleans to Chicago territory, which is approximately one-half the Birmingham rate to Chicago.

It is this iron that is being sold at \$21 and \$21.50 and heralded throughout the land as sales of Birmingham No. 2 foundry iron by price breakers in their efforts to depress values. The only thing about this iron that savors of Birmingham is that there is quoted with it Birmingham freight basis. It isn't in quality equal to No. 2 Birmingham foundry, and to many melters of iron it is a "bête noir" and not desirable at any price. Anyway, since the sales at \$21 have been published, good No. 2 foundry, Birmingham make, has pursued the even tenor of its way at values showing but little change and ranging from \$23 to \$24. There were sales at \$23, \$23.50 and \$24. And there were sporadic cases of sales above \$24. But the extreme prices cannot be called the market. A fair quotation would be \$23 to \$23.50. And it is selling right along at these prices, in spite of the malevolent attempt to depress prices by the circulation of misinformation to the public. Such conduct merits only condemnation. Numbers of orders came here at \$21, \$21.50 and up to \$22 for Birmingham spot No. 2 foundry, but not one was accepted. The truth is, so little spot iron is available that the sellers are indifferent as to acceptance of offerings.

For delivery the first quarter sales were made at \$22 and \$22.50, some of them specifying March as delivery month.

For the last half of the year sales were made at \$18, \$18.25, \$18.50 and \$19. One of the leading interests is emphatic in the declaration that for deliveries prior to October they are sold up and are not offering. A companion interest says that for all the deliveries of 1907 their books are full. The writer don't find that dull and listless market that others quote. His ex-

perience, information and observation are that the brother who has no iron to offer finds things dull, while the one who can satisfy "the aching void" has the call. The circulation of the \$21 canard has had an influence on values, but it is felt that it is short-lived, and prices will rebound.

Not a sight can be had of the seller who is reported to be offering last quarter delivery at \$17 for No. 2 foundry. There may be some gray forge offering at that value. In giving No. 2 foundry as the base price the difference between grades, it must be remembered, is still irregular. Sometimes it is 50 cents, while it is as often \$1.

For the second quarter there is some business doing, the range in values being from \$21 to \$22. The bulk of it was at \$21.50. A leading interest avers that all during last month and up to date this month their sales for last half of 1907 were all at \$19. In scrap iron Weller & Co. report a variable market and some changes in quotations of moment.

Old iron rails, \$23 to \$23.50.

Old iron axles, \$24.50 to \$25.

Old steel axles, \$18 to \$19.

Old car wheels, \$21.50 to \$22.50.

No. 1 railroad wrought, \$20.50.

No. 2 railroad wrought, \$17 to \$18.

No. 1 country wrought, \$17.50.

No. 2 country wrought, \$15 to \$15.50.

No. 1 steel, \$15.50 to \$16.

Machinery castings, \$16.50.

Stove plate, \$13 to \$13.50.

Borings, \$8.75 to \$9.

Cut boiler, \$13 to \$13.50.

At this writing the market is quiet and demand is light.

At the various cast-iron pipe works business is quite brisk, with the requirements of willing buyers five or six months ahead being considered. Quotations here given are but approximations of prices:

For four and six-inch pipe, \$35 is price.

For 8, 10 and 12-inch pipe \$33 is price.

For large sizes \$31 is price.

For extras 3½ cents per pound. All the works are full of business for months ahead.

Like the other interests, they complain of car shortage, and are sufferers in proportion to extent of business done. It is "apropos" to say here that complaints are yet deep and loud of the scarcity of cars. From one source it is learned that one railroad has 1000 loaded cars on tracks awaiting movement, and another is credited with 800 cars in the same condition. A story that is true comes to the writer to the effect that it takes 15 days (on an average) for a road to move supplies from mines to furnace, the intervening distance being a five hours' freight run. This is not a case of inability, but it is a case of inefficient management. The feeling is growing that the present deplorable condition of freight traffic can be attributed to the incapacity of those who control it. There's too much horn tooting at headquarters in the distant East and too little of the "up and doing" here, where the trouble seems so apparent. The failure to give the relief that is possible is concentrating public opinion to government control.

C. E. Buek has resigned as vice-president of the Southern Steel Co., but retains the position of director in the company, and Gentry Hillman, the superintendent of the furnaces, has also resigned his position with the company. In the one case bad health is given as the reason, while none is given in the other.

Your correspondent learns from official source that the Woodstock Furnace Co. will have one furnace in operation by March 15. Independent of that, we have at least seven furnaces out of blast that are usually credited as being of this district. Under such circumstances, it is folly

to say this is a record year with this district. With the exception of a very few instances, the various industries are full of work. Some are active for account of local work, while those depending upon outside business are working full time.

At 27th street and First avenue a duct has been contemplated for some time. It has had to wait upon the convenience of the Southern Railroad for action, and it is waiting yet. At the point for the proposed viaduct it will be 2800 feet long. When it is stated that 100 tracks will cross a public highway at this point the necessity for prompt and thorough action is imperative.

At the terminal station everything is going with a rush, and every effort will be made to have the depot ready for use by the first of July. But expectations and realizations sometimes are coy with each other.

Sufficient returns of coal production have been received by the State Mine Inspector to authorize the statement that the output for 1906 is approximately 450,000 tons less than the preceding year, and the deficiency is owing to lack of cars furnished by the railroads. The value is unchanged, and runs from \$1 to \$2.25 per ton at the mines. It can be stated that although we are locally in the heart of the coal fields, the price of domestic coal here is \$4.50 per ton delivered. Coke is in increased demand the past week, and price ranges from \$3.75 to \$4.50, as to quality.

In an interesting official table published by the State it is shown that receipts of all the railroads in this State from all sources were \$32,846,740 in 1906, of which \$26,372,295 was absorbed by operating expenses and taxes. The net earnings were \$6,555,413. It cost the railroads 76.09 per cent. of total earnings to operate in 1905 and 80.29 per cent. in 1906.

J. M. K.

#### CHARLESTON NATURAL GAS.

##### Assured Fuel Supply for West Virginia's Capital.

[Special Cor. Manufacturers' Record.]

Charleston, W. Va., February 18.

In addition to the enormous gas development of this section—vastly greater than the outside world is aware of—there is now being developed nearby an oil territory of much promise, and one which is already producing in commercial quantities. This new oil field has aroused a considerable degree of interest among oil men, and there would be a good deal of the customary excitement following the bringing in of a new oil field were it not for the fact that the territory has been quite thoroughly covered by the prospectors and operators who are already in the field.

Prospecting began here about a year ago. A small well was brought in at that time, and three months ago a flow of 150 barrels a day was struck in a new oil well. Now five new rigs are up, and development will be made as rapidly as possible. Everything indicates this will be a fine oil field. The oil is found in the "Big Injun" sands, the formation in which are the high-grade oils of the most productive wells in West Virginia.

The oil is found on Green and Rock creeks, tributaries of Poca river, the locality being some 20 miles north of Charleston. East of these oil fields are the enormous gas developments of this section. Here, in

Roane and Kanawha counties, on the waters of the Big and Little Sandy, on Poca river and Green creek, there is a field 18 miles square, as shown by present developments, which has a capacity of 240,000,000 feet daily flow. From 30,000,000 to 40,000,000 feet are at this time being piped from the field. The field is about 25 miles from Charleston, and as a life of at least 30 years is considered certain for this field, Charleston is put in a very advantageous position with reference to natural gas for factories at a cheap rate and throughout a long term of years.

Besides the service given Charleston, this field also supplies Huntington and other towns along the Ohio river as far down as Portsmouth, and West Virginia gas is also being supplied to Norwood, a suburb of Cincinnati.

A large number of companies, local and foreign, are operating in this field. The list includes the United States Gas Co., Chicago; United Fuel Co., Ohio; Ohio Fuel Co., West Virginia; Green Creek Oil & Gas Co., West Virginia; South Penn Company (Standard Oil); Carter Oil Co. (Standard Oil); Chatham Oil Co., New York; Vesprine Oil Co., West Virginia, and Bull Pen Oil & Gas Co., West Virginia, the latter being the property of the Chiltons, Crawford & Ashby and others of Charleston. The declaration is made that this is the largest gas field developed in the United States.

It is stated that a shop for tool and machinery repairing is badly needed in these oil and gas districts. Jarrett's Ford is mentioned as a good point for these shops, as it is a good place to get into the field from, and being on the Kanawha & West Virginia Railroad, it is a good shipping point.

ALBERT PHENIS.

#### Kentucky-Tennessee Oil.

[Special Cor. Manufacturers' Record.]

Barbourville, Ky., February 18.

The new classification placed upon Kentucky-Tennessee crude oil last week by the Standard Oil Co. is of great importance to the producers in this field. An advance of two cents was made in the price of the better grade oil, the quotations now being 87 cents per barrel. The inferior oil now commands 60 cents per barrel, an advance of five cents over former figures.

Last week's advance in prices marked the first change in the crude-oil market in the Kentucky-Tennessee fields for eight months. The effect will be to stimulate drilling, as with a little more profit in production the producer will be encouraged to extend the scope of his operations and seek out new locations. During the winter drilling has been conducted mostly in the proven fields, the low price of oil not being sufficient inducement to encourage an extension of drilling.

Marked progress has been made during the past few weeks in two fields which are now in the "wildcat" era of development. In Scott county, Kentucky, the Indian Refining Co., Georgetown, is drilling a series of tests, and two oilers have been registered from three tests, one proving a non-producer. The company has a refining plant in that county, using both grades of Kentucky-Tennessee crude oil. Drilling will be continued in Scott county, the indications being pronounced excellent. In Clinton county, Kentucky, two or three companies are drilling test holes, and several strikes have recently been made. The percentage of dusters in that field has been low, and the prospects are bright for the creation of a development during the coming spring and summer.

In the older producing divisions of Kentucky the effect of the advance in prices is beginning to be felt, and several contracts for drilling have been made during the past few days. In the Wolfe and Wayne

county developments a number of new drilling rigs have been put to work. On the Tennessee side little life is evident just now.

W. S. HUDSON.

#### Yorkville Needs Factories.

[Special Cor. Manufacturers' Record.]

Yorkville, S. C., February 16.

In Yorkville, situated along the foothills of the Blue Ridge mountains in the upper part of the State, we have what we consider the finest climate in the Piedmont section, fine water, schools, good churches, clever and prosperous people both in town and surrounding country.

This town has two distinct and separate railroads passing through it, and is on the lines of the Catawba Power Co., making it advantageous for nearly all kinds of manufacturing.

The labor that can be had for any kind of factory is of the best. The people show a liberal and friendly spirit toward all kinds of legitimate enterprises.

This is a good location for the following enterprises: Furniture factory, mattress factory, suspender factory, handkerchief factory, knitting mills, cotton mills (we now have three), and a hundred and one others can manufacture here as cheaply as anywhere in the United States.

Any other information desired by anyone interested will be cheerfully given by the Commercial Club.

#### THE COMMERCIAL CLUB.

#### Big Steam Turbine Power Plant.

There has just been completed in the suburbs of Washington, D. C., a large steam-power plant. It was designed and built by J. G. White & Co., Inc., of New York, under the direct supervision of L. E. Sinclair, general superintendent of the Potomac Electric Power Co. It is especially interesting because of the advanced type of design and of the machinery installed.

The capacity is enormous considering the area of the building. Every available inch has been used to good advantage, yet the machinery is not in the least crowded, and there is ample room in which to make repairs, etc.

The new plant will supply light and power in the city of Washington, both for commercial and municipal uses, and will also furnish current for the greater part of the local street-railway system. To this end substations are conveniently located throughout the city, which receive current from high-tension feeders and transform and distribute it to the low-potential network.

This plant is located on the east bank of the eastern branch of the Anacostia river near the Bennings road bridge. Its building has a steel frame and walls of concrete blocks. Three concrete chimneys 200 feet in height and having an internal diameter of 12 feet serve three batteries of eight boilers each. The boiler-house is arranged at right angles to the generating-room, and is elevated 14 feet above it. This arrangement permits the installation of all the auxiliary apparatus on the same floor level as the generators. The boiler-room basement contains two exciter units, the boiler-feed oil pumps and two house pumps, as well as the oil-filtering tanks and testing tanks, the coal and ash handling plant, repair shop, storeroom and a locker and toilet-room.

The boilers are of the Babcock & Wilcox make, designed for 175 pounds working pressure, equipped with superheaters capable of superheating the steam to 150 degrees Fahrenheit. The boiler fronts are faced with white enamel brick.

The generating-room, which is only 45 feet wide and 164 feet long, accommodates three 5000-kilowatt and two 2000-kilowatt turbines. All of the switching apparatus

is located in a switchroom 15 feet wide and extending along the side of the generating-room.

An interesting arrangement is found in the condensing water intake and condensing water discharge tunnels, which run from the river directly to the turbine foundations. This arrangement greatly simplifies both the construction and operation of the plant, as it materially reduces the amount of concrete necessary for the turbine foundations and gives a most satisfactory arrangement for obtaining the condensing water. Up to the basement floor all of the wall and column facings are made of concrete, while the superstructure consists of a self-supporting steel skeleton frame, for which about 800 tons of steel were required. The self-supporting walls are of hollow concrete blocks made by the Lake Stone Co. of Washington, and are of uniform size, 3x1x1 feet. While the exterior of the building does not present an over-ornate appearance, still the use of cast concrete, cornices, lintels, etc., has resulted in a very rich and pleasing effect. Taken all in all, the plant is probably one of the most thoughtfully designed and carefully constructed power plants in the United States.

#### Southern Architectural Activity.

Building activity in the South is providing considerable work for the architects of that section, as well as those of other sections of the country. It is increasing steadily, and the character of the structures designed and built is comparable to the best in the North, East and West. As indicative of Southern architectural activity may be quoted the following from H. H. Huggins, architect, Terry Building, Roanoke, Va.:

Wholesale notion house for Southern Investment Co., Roanoke Va., 100x100 feet, to cost \$60,000; slow-burning construction, fireproof windows and doors, electric elevators, sprinkler system; contract not let.

Residence for J. B. Fishburne; cost \$30,000; press brick, Bedford stone, plate glass, hardwood, vacuum heat; contract not let.

Addition to Melrose and Gilmer avenue graded school buildings, to cost \$12,000 and \$8000, respectively; plain brick, yellow pine, steam heat, blackboards; contract not let.

Annex to Central Hotel for R. H. Angell, 30x70 feet, containing storeroom, dining-room and kitchen and 10 bedrooms; cost \$5000; contract not let.

Residence for J. W. Boswell; cost \$6000; contractor, M. F. Carner.

Remodeling and enlarging building on Salem avenue to be known as Academy Hotel; cost \$8000; being built by J. F. Barbour & Co.; brick, modern plumbing, steam heat, electric and gas fixtures, bells, etc.

Stone Printing & Manufacturing Co.'s new reinforced-concrete building will be completed by April 1; designed by H. H. Huggins, architect; J. B. Williamson of Baltimore, engineer; E. Tattersall of Norfolk, contractor. This building will be absolutely fireproof, covering a ground space 110x218 feet. The exterior walls are faced with local blue limestone showing a quarry face, giving the Jefferson-street facade, in its 218 feet of length and 50 feet of height, a very massive appearance; cost of the structure will approximate \$100,000. These buildings are all in Roanoke, Va.

#### Appalachian Engineers.

The Appalachian Engineering Association at its annual meeting in Charleston, W. Va., elected Messrs. Howard N. Eavenson, chief engineer of the United States Coal & Coke Co. of Gary, W. Va., presi-

dent; B. Burleson of the Norfolk & Western Railway engineering department, vice-president; N. H. Mannakee of Williamson, W. Va., secretary, and R. H. Buchanan, Edgarton, W. Va., treasurer. Dr. I. C. White, director of the West Virginia Geological Survey, gave a very interesting address to the association on his recent correlation of the coals of the Kanawha series and those of Tug river.

#### Power for Concord.

[Special Cor. Manufacturers' Record.]

Concord, N. C., February 19.

An overall factory is to start operation in Concord within the next 30 days. The enterprise is to be operated by Messrs. P. A. & J. C. Correll, who have rented rooms and ordered the machinery. The capacity will be, to begin with, 25 dozen pair overalls a day, while the expectation is to more than double that capacity.

The coming of the Catawba Power Co. to this city will give Concord an unlimited power, which can be had at very moderate rates for the operation of manufacturing plants. There are now several other small plants in course of development, and a new woodworking plant is assured. Messrs. Davis & Niblock have bought a site for a plant which will deal in and make building material for the trade, dressed and finished lumbers being a specialty.

Concord has just organized a very strong Board of Trade, with Mr. James W. Cannon as president and Editor J. F. Hurley of the *Tribune* as secretary. The first meeting was attended by fully 100 of the business men of the city, and the purpose of the organizers is to furnish and maintain elegant rooms and organize fully for the developing of Concord. With the power from the Catawba, a first-class plant owned and operated by the city and the certainty of an unlimited power from the Yadkin at Whitney, Concord will offer most excellent opportunities for the location of manufacturing plants.

The Davis Chemical Co. is another concern to be organized here.

#### Concrete in Suburbs.

The Association of American Portland Cement Manufacturers is about to issue the program of a prize competition for small suburban dwellings to be built of concrete. While exacting the use of concrete for as large a part of each building as possible, it is the purpose of the association to leave competitors free to use the material as their invention shall suggest, in combination with other materials or not, as they chose. A number of prizes will be given, the first being for 5 per cent. of the cost of the building. The committee on competitive plans is composed of Messrs. Robert W. Lesley and Spencer B. Newberry, with offices at 1232 Land Title Building, Philadelphia, Pa.

A report of shipments of Peace River phosphate rock made by the Peace River Phosphate Mining Co. through the port of Punta Gorda, Fla., amounted to 41,742 tons for the year 1906. Shipments for January of this year aggregated 2030 tons.

The West Virginia Retail Hardware Men's Association has elected Messrs. C. B. Kyle, Wellsburg, president; Thomas B. Fry, Keyser, and E. J. Kane, Weston, vice-presidents, and Leslie Hawker, Shinnston, secretary and treasurer.

Business men of Manor, Texas, have organized the Business League with Messrs. Dr. John E. Hill, president; L. L. Hudson, treasurer, and A. H. Eva, secretary.

For the purpose of actively assisting in increasing the population of its town to 10,000, a Ten Thousand Club has been organized at Siloam Springs, Ark.

#### RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

#### TO RELIEVE CONGESTION.

##### Louisville & Nashville Plans Much Construction, But Capital Is Too Costly.

President Milton H. Smith of the Louisville & Nashville Railroad Co. has made an interesting contribution to the discussion about railroad facilities and the congestion of traffic in the form of a letter to the Tennessee Railroad Commission in reply to an inquiry concerning the causes of delay to the movement of freight and as to what the company is doing to relieve conditions.

President Smith says that the complaint of delays is so general that he can give only a general explanation. Referring to a particular case, he expresses the opinion that certain manufacturers in question are not provident in their methods of securing raw materials, but delay their orders for such until a large number have accumulated by the time they are ready to manufacture, the result being that there is a crush of business at one period instead of an even distribution thereof. Concerning the Louisville & Nashville, he further says that the shipments offered are greater than the company can properly move, and cars are not in all cases promptly supplied, not because the car equipment is inadequate, but because of lack of other facilities; the cars after loading cannot be promptly moved, and in many cases are not promptly unloaded by the consignees at destinations. Furthermore, he says that the company for years has been energetically endeavoring to increase its facilities by making large expenditures on terminals. Large sums have also been expended to increase the hauling capacity of lines by reducing grades and curves. As for the terminal improvements, the Nashville, Chattanooga & St. Louis Railway expended a large sum in Nashville, yet the terminals are now inadequate, and notwithstanding that, President Smith says, efforts are being made to take the use of these facilities from the companies creating them.

Considering the improvements to the lines, he says large expenditures have been going on for the last five years on the line from Nashville to Henderson, Ky., principally between Nashville and Guthrie, Ky. Now to continue the work it is necessary to also reduce grades and curves from Guthrie to Henderson, but this has not been started because of the inability of the company to sell securities except at an unjustifiable sacrifice. He also refers to the work of improving grades and building second track between Sinks, Ky., and Corbin, Ky., as well as at other points, and he estimates that \$100,000,000 should be expended in the next five years for such improvements as have here been noted, including more equipment, shops, etc., but this cannot be entered upon because of what is deemed by the management prohibitory terms to obtain the required capital.

During the 13 years ended in June, 1906, President Smith says the company has expended for equipment \$14,367,851, while during the same period the total expenditure, including equipment, additions to property, betterments, etc., was \$74,723,320. During the four years ended last June the number of locomotives was increased from 605 to 745, or 23 per cent., while their increase in tractive power, owing to greater capacity of new engines, was 33 1/3 per cent. During the last six months of 1906 there was another increase of 73 locomotives, or nearly 10 per cent., with a further increase of 13 per cent. in

hauling power. The number of freight cars during the four years ended June 30 last was increased from 27,699 to 36,158, or 31 per cent, while the capacity of freight cars, owing to larger build, was increased 41 per cent. During the last six months of 1906 1548 more freight cars were purchased, and the capacity was also increased 5.2 per cent. Contracts have been let for 71 locomotives to be delivered during the current calendar year at a cost of \$976,058, and also for 4075 freight cars and 25 passenger cars to be delivered this year at a cost of \$3,082,150.

President Smith says that if the present volume of traffic is to continue and to increase the company will, to render satisfactory service, have to reduce grades and curves and build second track between Henderson, Ky., and Edgefield Junction, between Louisville and Mobile, between Louisville, Cincinnati and Knoxville, besides making material additions to equipment and also building additional terminal facilities, shops, etc., this in addition to the necessary work previously mentioned.

After noting the various legislative movements concerning the regulation of railroads and also actions at law against the lines, President Smith says he ventures the opinion that in 12 or 18 months existing facilities will be adequate to transportation requirements, for the reason that a large part of the existing traffic is the result of enormous expenditures made by the railroads in adding to their facilities, thus employing many millions of people and creating directly and indirectly a very large traffic. Therefore, if the companies do not obtain additional capital, further improvements will not be taken up, and upon the completion of those under way the employment of so many people and the resulting traffic will cease.

#### COAL LAND AND RAILWAY.

##### New \$10,000,000 Company Organized for Development in West Virginia.

Mr. V. E. Wenzel, assistant secretary of the Blue Creek Coal & Land Co., Scranton, Pa., sends the MANUFACTURERS' RECORD information that a new corporation known as the West Virginia Coal & Lumber Co. has just been organized, with \$5,000,000 capital and \$5,000,000 of bonds authorized, to purchase the Blue Creek Coal & Land Co., which owns valuable coal lands along the Kanawha & West Virginia Railroad, and to finance extensions of the line.

The Kanawha & West Virginia Railroad, which is now about 35 miles long from Charleston to Blue Creek and Blakely, W. Va., is constructed in a very substantial manner with 80-pound steel rails, and is designed to handle heavy traffic. Its principal object now is to develop coal territory, of which the Blue Creek Coal & Land Co. owns about 50,000 acres, including timber as well as coal, situated principally in Kanawha county and along the line of the new railroad. The proposed extensions will, it is said, open up many thousands of acres of splendid coal lands covered with virgin forests.

Among the officers of the Kanawha & West Virginia Railroad who are interested in the West Virginia Coal & Lumber Co. are Edward S. Jones of Scranton, Pa., who is president of the line; ex-Governor W. A. MacCorkle of Charleston, W. Va., vice-president; W. D. Boyer, secretary, and Thomas E. Jones, treasurer, both of Scranton, Pa. Others interested are Cyrus D. Jones, W. F. Hallstead, C. P. Davidson, John T. Porter, Robert C. Wills, Harry K. Kingsbury, Charles S. Weston, Charles H. Welles, J. A. Linen and Mina Robinson, all of Scranton, Pa.; Edward F. Payne, J. W. Hollenback of Wilkes-Barre, Pa.; Henry E. Meeker of New

York city, J. Amburst Wisner and Horatio Wisner of Brooklyn, N. Y.; J. K. Griffith of Latrobe, Pa., and others of Charleston, W. Va.

It is said that the coal to be developed is the Kanawha coal, well known for excellent steam qualities and its advantages in domestic use. Already a number of coal tipplers and a large number of sawmills are being operated along the line of railroad, and others are to be started. The railroad connects at Charleston with the Kanawha & Michigan Railway, at Blue Creek with the Coal & Coke Railway and at Belva with the Chesapeake & Ohio Railway. The proposed bond issue by the new company is for 5 per cent. collateral trust bonds, with the Scranton Trust Co. as trustee for the Blue Creek Coal & Land Co., that owns the Kanawha & West Virginia Railroad.

A great industrial development in the region to be opened up is expected to follow the incorporation of this new company.

#### SEVENTY STEEL BRIDGES.

##### Atlanta, Birmingham & Atlantic Railway Is Rapidly Growing.

The Atlanta, Birmingham & Atlantic Railway, which is building and equipping a standard-gauge railroad that, when completed, will extend from Birmingham, Ala., to Brunswick, Ga., with two branches, one from the direction of Birmingham and the other from the direction of Brunswick into Atlanta, Ga., has, according to official information received by the MANUFACTURERS' RECORD, let contracts to the American Bridge Co. for about 70 steel bridges, including all the river and creek crossings between Montezuma, Ga., where the extension of the line began, and Birmingham, Ala.; also between Chalybeate, Ga., and Atlanta, Ga. This will include the bridge over the Coosa river recently noted.

The company is erecting its own buildings, the designs being made in the chief engineer's office. These structures run from small stations to depots of from \$15,000 or \$20,000 in cost, according to the requirements at each point. To a great extent concrete is being used in the erection of these buildings, practically all of the freight depots being built with concrete walls and tile roofs.

The company, which has about completed its line as far as Lagrange, Ga., will, according to reports from Atlanta, be running trains into the latter city next month under an arrangement with the Atlanta & West Point Railroad, with which connection is made at Lagrange. Meanwhile the company is hastening to build its own branches into Atlanta, and will use its own lines when they are completed. It is expected to finish the road to Birmingham this year, and also to have adequate terminals to begin business in both Birmingham and Atlanta. The local corporation in Atlanta is known as the Gate City Terminal Co.

The principal officers of the Atlanta, Birmingham & Atlantic Railroad are H. M. Atkinson, president; P. S. Arkwright, first vice-president; George Dole Wadley, second vice-president and general manager, all with offices in the Electric & Gas Building, Atlanta, Ga. Alexander Bonnyman is chief engineer at No. 202 Empire Building, Atlanta.

#### A SEABOARD TERMINAL

##### Wilmington Property Bought on the Water Front, Perhaps for Coal.

The Seaboard Air Line Railway Co. is reported to have purchased through the North Carolina Terminal Co. a lot of ground on the Cape Fear river at Wilmington, N. C., the water frontage being 264 feet. The terminal company, it is stated, has just been chartered by John D.

Bellamy, counsel for the Seaboard Air Line; John S. Armstrong and William McKoy Bellamy, with an authorized capital of \$350,000. The price of the ground was \$60,000.

It is further reported that a belief prevails at Wilmington that it is the Seaboard's intention to make Wilmington a terminal to handle the coal traffic of the South & Western Railway, which is to connect it with the Seaboard at Rutherfordton, N. C.

#### Stone & Webster Buy a Railway.

Stone & Webster of Boston have purchased the Baton Rouge Electric, Gas & Power Co. of Baton Rouge, La., and will, it is reported, develop the street railway and other plants. This, it is said, means that the proposed electric railway from Baton Rouge to New Orleans will be constructed according to the plans of W. Osgood Orton, the promoter. Edward Godchaux of New Orleans is also interested, and he is reported as saying that as soon as financial arrangements are made construction of the line to connect the two cities will begin. At present the improvement of the Baton Rouge property will only be done. Stone & Webster will build the railroad through the Stone & Webster Engineering Corporation. Others mentioned as interested are Charles Godchaux, Samuel Weis and Solomon Wexler of New Orleans, and Joseph Gotlieb of Baton Rouge.

The proposed railroad to connect New Orleans and Baton Rouge will, it is stated, be 85 or 90 miles long, and will connect a number of towns, some of which are without immediate railroad facilities.

#### Contracts for Material.

D. E. Baxter & Co., Inc., 27 William street, New York, contractors for the construction and equipment of the Charleston & Summerville Electric Railway from Charleston to Summerville, S. C., 22 miles, have placed orders for 3150 tons of 70-pound rail, 850 kegs of railroad spikes, 5½x9-16, and 12 switches, delivery to be made in the early part of May. The fire-proof concrete power-house, in which will be installed the Snow gas engines, generators and electrical appliances for operating the road, will be commenced immediately. The overhead construction will consist of latest improvements for single-phase transmission, with 120-foot spans, No. 3-0 hard-drawn, copper-grooved trolley wire.

In order to complete the line in time to carry summer travel the contractors are continually increasing their forces. They have been assured by the Snow Manufacturing Co. that the delivery of machinery will be prompt. A spur will be run from the main line to the new Charleston navy yard.

#### Motor Cars.

The Tuscaloosa Belt Railway will, according to a report quoting one of its officials, purchase a gasoline motor car to operate on its line at Tuscaloosa, Ala. The car has been ordered, and is expected to be in use next month.

A report from Houston, Texas, says that Brooke Smith has purchased a gasoline motor car similar to that used by the Southern Pacific Railway lines in Houston and to be used on the railway which has been built from a connection with the Houston Electric Co.'s line to the Brooke Smith addition, which is a suburban residential section.

#### Tunnel at Cumming's Gap.

An officer of the Southern Railway sends the MANUFACTURERS' RECORD information concerning the building of a tunnel through Cumming's Gap, near Chattanooga, Tenn., saying that this gap

is in Raccoon mountain and is situated between the sixth and seventh mileposts on the line which the company is building from Chattanooga, Tenn., to Stevenson, Ala. It was first intended to make an open cut through Cumming's Gap, but when work began at that point the nature of the ground was found to be such that it was impracticable to make a cut; hence it was decided to construct the tunnel instead. The tunnel will be about 1200 feet long. The officer in charge of the work is D. G. Seymour, resident engineer at Chattanooga, while W. H. Wells is engineer of construction of the Southern's system at Washington, D. C.

#### Mobile, Jackson & Kansas City.

The recent accession of B. F. Yoakum, chairman of the Rock Island system, to a position of control in the Mobile, Jackson & Kansas City Railroad has caused several reports concerning the probable use of that road by the Rock Island and its allied line, the Frisco. One of these reports says that the Mobile line may be connected with the Chicago & Eastern Illinois division of the Frisco system to make a through line from Chicago to the Gulf. Another report says that the Frisco will use the Mobile road in order to get into New Orleans, connection being made at Laurel, Miss., with the New Orleans & Northeastern Railway.

#### Seaboard May Connect.

According to a report from Montgomery, Ala., the proposed extensions of the Birmingham & Atlantic Railroad from Talladega to Montgomery and also from Talladega to Anniston means that the Seaboard Air Line may utilize the road to get from Montgomery northward, possibly to Birmingham. The decision of the Seaboard to build a branch to Anniston causes expectations that the two roads will be connected. The Birmingham & Atlantic's line from Talladega to Montgomery will be about 150 miles long, while that from Talladega to Anniston will be about 20 miles long.

#### Railroad Notes.

The Texas & Pacific Railway has begun to enlarge and remodel its station at Fort Worth, Texas, and an addition 30x300 feet will be made.

The Eagle Pass & C. P. Diaz Auto Line of Eagle Pass, Texas, has been incorporated with \$4000 capital by Lea Hume, Lorenzo Cantu, S. P. Simpson and others.

The union depot at Trinity, Texas, is now reported completed. It is used by the Missouri, Kansas & Texas, the International & Great Northern and the Beaumont & Great Northern railroads.

The Berwick Bay bridge, near Morgan City, La., is reported well under way, seven of the nine pneumatic piers being completed, and construction of the spans is to soon begin. This bridge is being built by the Southern Pacific lines in Louisiana at a cost of about \$500,000.

The Seaboard Air Line, according to a report in New York, acquired control of the Macon, Dublin & Savannah Railroad by the purchase of its capital stock. It is further stated that the Seaboard intends to make the acquired line part of a through short route from Atlanta to Savannah.

The Florida East Coast Railway, it is reported, expects to complete its Key West extension in about four months. It is said that about 70 miles of grading have been done and 31 miles of track laid. The entire extension is about 135 miles long, and much of it, as heretofore noted, consists of viaducts spanning the channels between the small islands on which the road is being constructed.

## TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

## Lockhart Mill No. 2 Completed.

One of the leading cotton-manufacturing enterprises of South Carolina is the Lockhart Mills at Lockhart. This company has recently completed its No. 2 mill, previously detailed in the MANUFACTURERS' RECORD, and the following statement regarding it and the entire plant is of interest. The No. 2 mill is a building 300 feet long by 130 feet wide, equipped with modern machinery—804 looms, 25,153 spindles, 112 revolving flat cards and complementary outfit. The mill is supplied with automatic feeders, humidifiers in all the stories, and a complete sprinkler system and electric plant sufficient to furnish light for both mills and for the mill village; also a complete cotton ginnery supplied with electric power conveyed a distance of 1200 feet from the mill. There is a water system, the water being conveyed to top of an adjacent hill to a reservoir made in the ground and substantially cemented, containing 200,000 gallons of water. The reservoir's surface is 125 feet above the first floor of both mill No. 1 and No. 2, giving an immense pressure on all sprinklers. The water for the reservoir is furnished from the tailrace through a 10-inch cast-iron pipe. A second reservoir, which will be used for sewerage purposes, to contain 200,000 gallons of water, is anticipated. When this is completed the village of the operators will be furnished with complete sewerage and electric-light systems. The water development for mill No. 2 consists of a canal 120 feet wide, the water delivered to four cast-steel flumes eight feet in diameter running under the mill and delivered into three pairs McCormick water-wheels. It gives a total power capacity for mill No. 2 of 3000 horse-power. The total equipment of mills No. 1 and No. 2 is 1600 looms and 51,000 spindles, and there is a total development from water-power of 4000 horse-power. The company has also a full complement of outside equipment—offices, storehouses, cotton warehouses and tenement-houses sufficient to accommodate 3000 people. A complete ice plant furnishes ice for the operators and public.

It is understood that the Lockhart Mills enterprise now represents the investment of over \$1,500,000. The company has developed sufficient water-power to operate another addition of 25,000 spindles and looms to match, which would increase its capacity to 75,000 spindles and 2500 looms. Mr. John C. Cary is president and treasurer.

## Consolidated Cotton Duck Co.

The stockholders of the Consolidated Cotton Duck Co. held their annual meeting at Baltimore, Md., on February 18. They received the report of the management and, expressed much satisfaction at the record which has been made. It was shown that the gross income for 1906 was about \$10,024,824, an increase of \$666,000 over the previous year. The net earnings were about \$1,301,881, an increase of \$384,700, and this was much less than it would have been had not the cost of materials and labor increased last year. The surplus amounts to about \$908,915, an increase of \$354,967. Of the year's surplus, \$283,735 was charged to depreciation ac-

count. Of the surplus, some \$370,002 is from the operations of the Consolidated Cotton Duck Co. and \$538,912 from the Mt. Vernon-Woodberry Cotton Duck Co. The directors declared the usual semi-annual dividend of 3 per cent. on the preferred stock. After the election of directors the following officers were re-elected: Chairman of board, S. Davies Warfield; president, Charles K. Oliver; vice-president and treasurer, David H. Carroll; secretary, C. S. Green; assistant treasurer, H. L. Smith; executive committee, Messrs. S. Davies Warfield (chairman), D. H. Carroll, George K. McGaw, J. H. Wheelwright, G. Clem Goodrich, Thomas L. Turner and E. A. Brinckerhoff.

## Southern Manufacturing Co.

The Southern Manufacturing Co. of Athens, Ga., referred to by the MANUFACTURERS' RECORD some weeks ago as contemplating the enlargement of its plant, has decided affirmatively and awarded all contracts. Mr. T. J. Nichols of Athens has contract for new mill building and operatives' cottages: Davis & Furber Machine Co. of North Andover, Mass., and Lowell Machine Shop of Lowell, Mass., for textile machinery; General Electric Co., Schenectady, N. Y., for electric motors; Southern Belting Co., Atlanta, Ga., for belting and supplies, and International Sprinkler Co., for sprinkler equipments. The Southern Manufacturing Co.'s new machinery will include 1260 mule spindles, 6072 ring spindles and 3810 twister spindles. When this equipment is in position the plant will have a total of 6636 spindles on yarns and 9196 spindles and 184 looms on nap goods, a total of 15,852 spindles and 184 looms.

## Gray &amp; Sons' Mill.

The MANUFACTURERS' RECORD is advised that the report mentioned last week as to Messrs. W. S. Gray & Sons of Woodruff, S. C., is correct. The firm has arranged to build a cotton-yarn mill, the equipment to include 20,000 spindles and a company to be formed with a capital stock of \$200,000. Mr. J. E. Sirrine of Greenville, S. C., has been engaged as architect-engineer in charge, and electricity will probably be used for driving the machinery. Messrs. T. E. Moore of Tucapau, S. C.; W. E. Burnett and Geo. W. Nichols of Spartanburg, S. C.; J. E. Sirrine of Greenville, S. C.; W. H. Gray and W. S. Gray of Woodruff will compose the board of directors.

## Athens Hosiery Mills.

The Athens Hosiery Mills of Athens, Tenn., is rapidly rebuilding its structure previously destroyed by fire. The company is erecting a two-story addition 42x42 feet for dyehouse, with inspecting room overhead; engine-room 20x42 feet, one story high; boiler-room 24x42 feet, one story high; oxydizing room 30x35 feet, one story high. It is also remodeling sprinkler system to cover the entire plant; is building a pool to hold 110,000 gallons of water, and will install a 750-gallon-per-minute underwriters' pump, for which it is in the market. Dye machinery has been ordered to replace the burned equipment, and a 12x36 Corliss engine has been installed.

## Icemorlee and Everett Companies.

It was reported recently that the Icemorlee Cotton Mills of Monroe, N. C., had decided to build a 5000-spindle additional mill. Later the incorporation of the Everett Cotton Mills of Monroe was reported, and last week the MANUFACTURERS' RECORD presented details regarding this enterprise. The two projects are identical, the organizers of the Everett company being members of the Icemorlee company and having decided upon a separate corpora-

tion for the additional plant. Some 5000 spindles are being installed. Mr. Charles Iceman is general manager.

## Granite Cordage Co.

The Granite Cordage Co. of Granite Falls, N. C., has been incorporated with capital stock of \$25,000 and organized with O. A. Robbins of Charlotte, N. C., president; A. A. Shuford of Hickory, N. C., treasurer, and J. M. Allred of Granite Falls, manager. This company has leased building and is installing 50 braiders for the manufacture of high-grade cotton cordage, from 5000 to 6000 pounds to be the daily output. Fifty more machines will be added soon.

## Gem Yarn Mills Co.

The Gem Yarn Mills Co. has about completed the erection of mill building, and is preparing to install 3000 spindles and accompanying apparatus for the manufacture of yarns at Cornelius, N. C. This company was reported incorporated recently. It has organized with J. B. Cornelius, president, and F. C. Schmitt, treasurer. Its capital stock is \$75,000.

## Bellevue Cotton Mill.

Mr. C. F. Boyer of Newport, Tenn., will establish the Bellevue Cotton Mill. He advises the MANUFACTURERS' RECORD that an equipment of 5000 spindles and accompanying machinery is now being installed for the manufacture of 8s to 12s yarns, the output to be about 15,000 pounds per month. About \$50,000 will be invested.

## Textile Notes.

The Tolar, Hart & Holt Mills of Fayetteville, N. C., will add 1308 spindles.

The W. H. Rowe Knitting Co. of Huntsville, Ala., has awarded contract for about 2000 spindles additional to present equipment.

Messrs. Ronert Moulthrop, G. L. Comer, J. F. White and others of Clayton, Ala., have incorporated the Barbour Cotton Mills with capital stock of \$50,000.

The Dublin (Ga.) Cotton Mills is said to have decided to double its capital stock of \$125,000 and as intending to enlarge the plant. The company's present equipment is 8000 spindles and 202 looms.

Messrs. Britton Bros. of Dallas, Texas, have purchased the Perrin Cotton Mills at Celeste, Texas, and will overhaul the plant preparatory to putting it in operation. Yarns and twines will be manufactured.

It is understood that the Cornelius Cotton Mills of Cornelius, N. C., will install during the year a plant for finishing its production of ginghams. The company was mentioned some weeks ago as contemplating such an addition.

The Denison (Texas) Cotton Mills has received the last shipment of the \$75,000 worth of new machinery ordered some months ago. This additional equipment included 132 looms, pickers, cards, drawing, clothroom machinery, etc. The company has 12,135 spindles in operation.

Messrs. M. L. Holcombe and Charles W. Goodwin of Clinton, O. T., propose to capitalize at \$350,000 their cotton-mill company mentioned last week. They have secured subscriptions for a considerable amount from local and outside investors, and anticipate being successful in establishing the enterprise.

## Cottonseed-Oil Notes.

Mr. J. L. Benton of Monticello, Ga., has been appointed a special agent of the National Government to promote the interests in foreign countries of cottonseed products.

A call has been sent to the members of the executive committee of the Interstate Cottonseed Crushers' Association by Presi-

dent F. H. Bailey to meet in either Memphis or New Orleans for the purpose of selecting a place for the next annual meeting.

The Chamber of Commerce of Atlanta, Ga., has invited the Cottonseed Crushers' Association to make its State headquarters with them and also to authorize the arbitration of all disputes at headquarters, instead of going to Memphis or New York, as heretofore. It is expected that the invitation will be accepted, as it will greatly facilitate the business of the association.

## FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

## Austria-Hungary Wants American Machinery.

Herman Manheim, Nizankowice, Galizien, Austria-Hungary:

"I can find market for the following American machines: Agricultural machinery, hay rakes, harrows, grass and grain mowing and binding machines, motors, automobiles, carriages, engines, typewriters and accessories. Kindly recommend suitable firms to send me without delay catalogues and prices."

## Piping, Fittings, Saws, Etc.

Oyanguren y Guevarra, Bilbao, Spain:

"Now that customs duties have come down considerably for American products, we believe that our manufacturers can compete in this market. Therefore we would like to enter into correspondence with some first-class people willing to do business here. Makers of wrought-iron piping and fittings, files, brass cocks, saw blades and other similar goods are invited to write."

## To Develop Cumberland Falls Power.

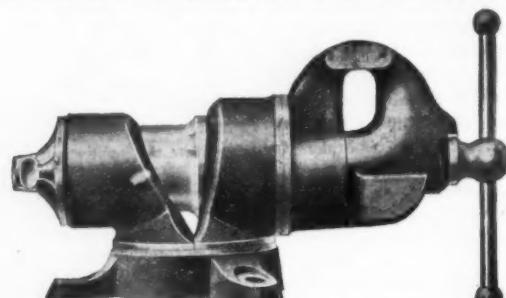
The MANUFACTURERS' RECORD of February 7 referred to the proposed development of the water-power of the Cumberland Falls and the establishment of a chemical reduction plant on the Cumberland river near Corbin. The proposition is under the direction of the Cumberland Falls Water-Power Syndicate, Messrs. J. J. Wetmore, Alfred A. Thresher and S. L. Merchant, managers, 29 Broadway, New York. They propose to develop about 20,000 horse-power for transmission by electricity for operating the chemical works and transmitting electricity to Louisville, Knoxville, Frankfort, Lexington and other cities for power purposes. It is stated that engineering work has already been carried on to such an extent that the construction of the dam can begin at once. This dam will be about 82 feet high, and will provide a head of 150 feet. It has been estimated that the power development and the electric plant can be built and equipped ready to transmit electrical energy for about \$2,000,000. Mr. Arthur Giesler of 29 Broadway, New York, consulting engineer, has made plans, surveys and measurements and submitted estimates for the syndicate. The latter has a nominal capital of \$100,000 and proposes to form a corporation which will complete the development work and own and operate the plants mentioned. Controlling stock in this corporation will be purchased by the syndicate. The corporation is to have an authorized capital of \$5,000,000 preferred stock and \$5,000,000 common stock.

Mr. Charles England, first vice-president of the Grain Dealers' National Association, has succeeded to the presidency, vice Mr. Henry L. Goemann of Toledo, Ohio, resigned.

## MECHANICAL

## A Big Vise.

A vise weighing 695 pounds has been designed and made by the Pittsburgh Auto-



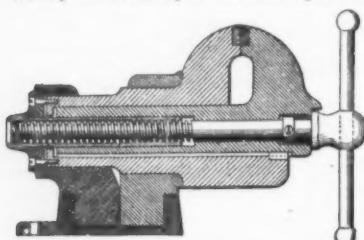
A BIG VISE—WEIGHT, 695 POUNDS.

matic Vise & Tool Co. of Pittsburgh, Pa. It is 36 inches long, 18 inches high, and has a jaw opening of 15 inches. The weight is admirably distributed to secure every possible atom of strength. The neck of the jaws are over four and one-half inches thick, while the slide bar is seven inches in diameter.

Similar to the company's regular vises, this vise is capable of having its jaws revolve in any direction. So perfect is the workmanship that the huge jaws can be made to describe any degree of two complete circles simply by the pressure of the little finger.

Shipbuilding yards, railroad and forge shops and the many other factories where gigantic work is performed find such a tool of wonderful service.

Due to its wonderful grip and strength, coupled with its double-swivel movement, work too heavy to lift into a vise can readily be stood upon one end upon the



SECTIONAL VIEW OF BIG VISE.

floor and the jaws thrown at right angle, fully gripping the entire stock. The severest work can then be performed upon it.

The vise is composed of eight sections or parts, and when assembled is simplicity itself. The parts consist of a front and rear jaw, two yokes, screw, nut, base and friction plate.

The base, which is adapted to be secure to any suitable support, is formed with an annular seat for the body. The body consists of two halves or yokes, each provided with a section, or half of a hub, seated in the base, and adapted to be slightly tilted in respect to each other and their seat, so



USING THE BIG VISE.

that when they are drawn toward each other at their top they will be pressed outward below, thus locking frictionally by the vise seat.

The rear jaw is adapted to be rotated about its axis within the body of the vise. It has two diameters, the larger one working in the front yoke and the smaller one in the rear. The friction plate is affixed

to the outer extremity of the jaw member. Its cap bears against the outer edge of the rear yoke and serves as a support and bearing for the sleeve or nut. This possesses a head which bears against the outside of the friction plate or cap and ex-

tends thence through the same into the internal bore of the front jaw.

A special bearing is placed on the screw between its head and fixed collar to afford freedom of turning, but it is designed to be driven or forced tightly upon its seat in the front jaw, so as to serve as a reliable

## Induced Draft in Birmingham District.

An induced-draft equipment has been installed in the plant of the Birmingham Light, Heat & Power Co. of Birmingham, Ala. Two accompanying illustrations present views of the equipment, built by the American Blower Co. of Detroit, Mich. They show the fans and engines as they are to be arranged, also britching connection and stacks. Each fan is designed to handle the gases of combustion from 4500 boiler horse-power maximum. This is 50 per cent. overload. The outfit is designed to operate at its most economical point at 125 per cent. load, or when handling 3750 horse-power each. It is understood that chain grate stokers are used having a total of 600 square feet; these have 22 per cent. free area, but will probably be increased from 30 to 35 per cent. free area. The steam pressure is 175 pounds, with 100 degrees superheat; feed water, 212 degrees Fahr.; coal equivalent to 10,500 British thermal units. The fans are designed on the basis of five and one-quarter pounds of coal per horse-power and 24 pounds of air per pound of coal.

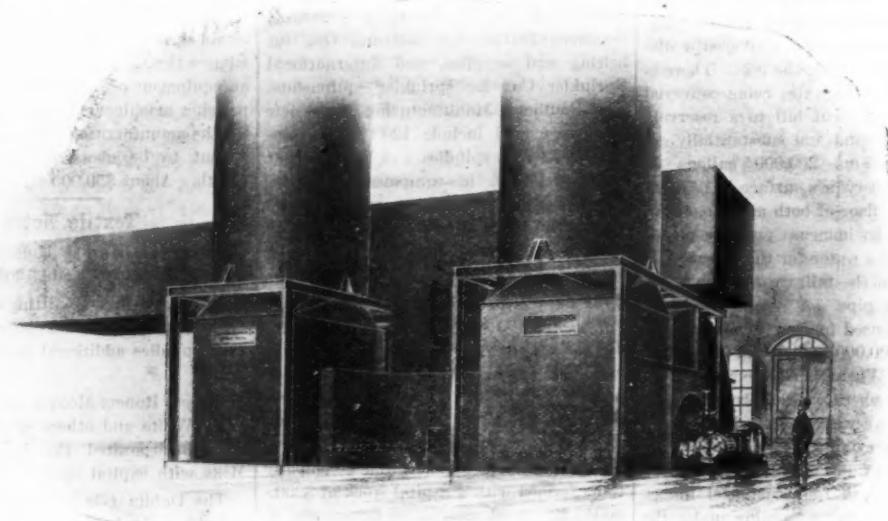
plate, firmly braced with vertical and horizontal channel-iron stiffeners, and are guaranteed not to warp or buckle under temperature under which they are designed to operate. The shaft is of ample size to prevent any displacement of wheels, and the wheels are so constructed as to preclude all possibility of striking housing.

Engines.—Each fan is driven by a direct-connected 14x14 Harrisburg-Fleming side-crank piston-valve engine, conforming to detailed specification.

Regulator.—With this apparatus was furnished one Locke fan-engine regulator with air attachment, and two four-and-one-half-inch chronometer valves.

Inlet connection and dampers.—The "V"-shaped inlet connection is constructed throughout of No. 8 plate, firmly braced with angle-iron stiffeners. Each inlet is fitted with a sliding-type inlet damper, with means for operation.

Power.—When operating at 150 R. P. M., with boilers overrated 25 per cent., the fans require 92½ brake horse-power to drive them. When working under 175 pounds steam pressure at one-quarter cut-off, the engines consume not over 28 pounds of steam per horse-power hour.



INDUCED-DRAFT EQUIPMENT IN THE BIRMINGHAM DISTRICT.

backing for the collar when the screw is rotated to open its jaws. This also gives the head of the screw a solid bearing against the full lock of the front jaw; therefore, there is nothing to break or give way or become weakened under the severe strains or pressure through the action of the screw. Thus it will be understood that

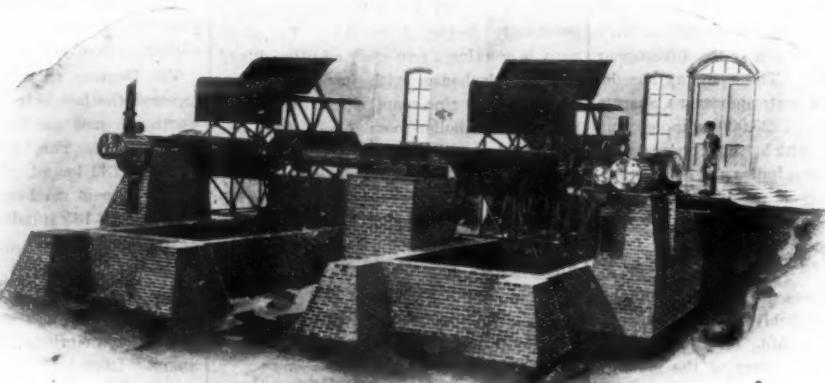
To meet these conditions two fans and two engines, each of the same size and design, are in position.

Fans.—Three-hundred-inch "A B C" three-quarter housed steel-plate fans, with blast wheels 15 feet in diameter, the same being arranged with couplings and extended shafts for direct connection to

## Vibrating Stuffing-Box.

An accompanying illustration presents a view of the vibrating stuffing-box recently completed by the Steel Mill Packing Co. of Detroit, Mich. The manufacturer describes this new device as follows:

"This stuffing-box automatically adjusts



INDUCED DRAFT IN THE BIRMINGHAM DISTRICT.

when the screw is tightened it tilts the body sections toward each other and locks them against rotation in the base. The inner jaw member has a splendid connection with the inner jaw, thus preventing its rotation in respect thereto.

Three illustrations of the big vise are presented herewith.

horizontal engines. The bearings on the inlet side of each fan rest outside of the inlet connection on a brick pier. The bearing on the engine side is securely fastened to the fan housings. Both bearings are of water-jacketed type, to prevent undue heating. The fan housings are constructed throughout of extra heavy

itself to any out-of-line movement of the piston rod or stem. It will be observed that the stuffing-box is arranged within a casing, and is held against the ground ball joint ring by means of springs, assisted by the steam pressure from the cylinder, keeping the joints tight and preventing leakage. A clearance is provided between the

stuffing-box and interior of the casing, and between the rear surface of the stuffing-box and the cylinder head. This permits the stuffing-box to move laterally relative to the casing to compensate for out-of-line movement of the rod or stem, and to rock on the curved face, or ball joint, to adapt itself to any angular movement of the rod.

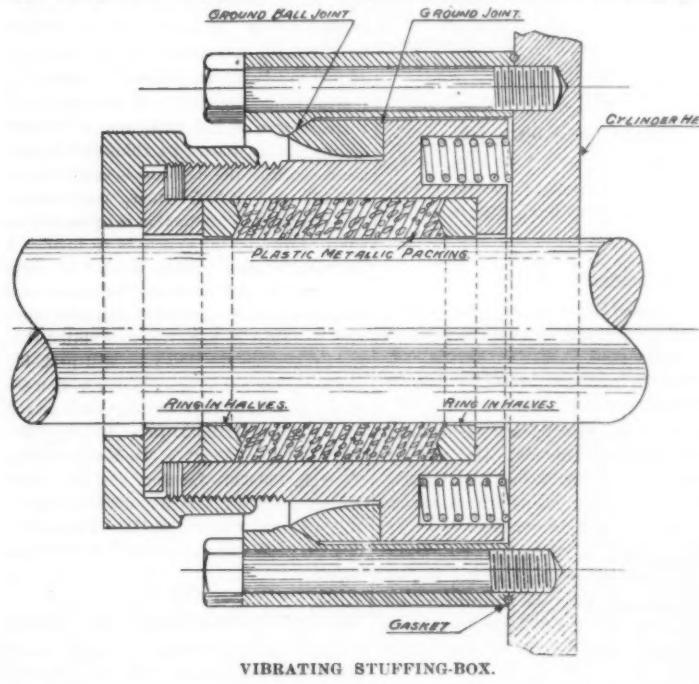
"The spacing rings at each end of the packing work in connection with the packing, holding the stuffing-box out of con-

nection with the moving parts, thus preventing wear.

"Our factory is being equipped with machinery for manufacturing these vibrating stuffing-boxes, and we will soon be prepared to place them on the market."

#### Self-Contained Belted Alternators.

The Allis-Chalmers Company of Milwaukee, Wis., has recently developed a line



VIBRATING STUFFING-BOX.

of small 60-cycle belted alternators known as type A. B. These machines are self-contained, and are built for outputs ranging from 50 kilowatts at 1200 R. P. M. to 150 kilowatts at 900 R. P. M., two or three phase. They can also be furnished for single phase in outputs ranging from 37½ kilowatts at 1200 R. P. M. to 110 kilowatts at 900 R. P. M. As shown by the



SELF-CONTAINED BELTED ALTERNATOR.

lateral movement of more than one-sixteenth inch, and it has been found that the stuffing-box 'floats with the rod' without any resistance, performing perfect work.

"In this instance the stuffing-box is packed with 'Safety' plastic metallic packing, although it will be seen that any suitable packing can be used.

"Since the stuffing-box was placed in operation it has been inspected by many mechanical experts, who have expressed

accompanying illustration, the bearings are supported in end housings bolted to the stator yoke, so that the whole machine is self-contained and requires no base. The stator yoke rests on slide rails, to which it is bolted.

These machines are of the revolving-field type, the armature being stationary. The stator punchings are of selected steel carefully annealed. They are supported in a cast-iron yoke provided with numer-

ous openings to allow free circulation of air.

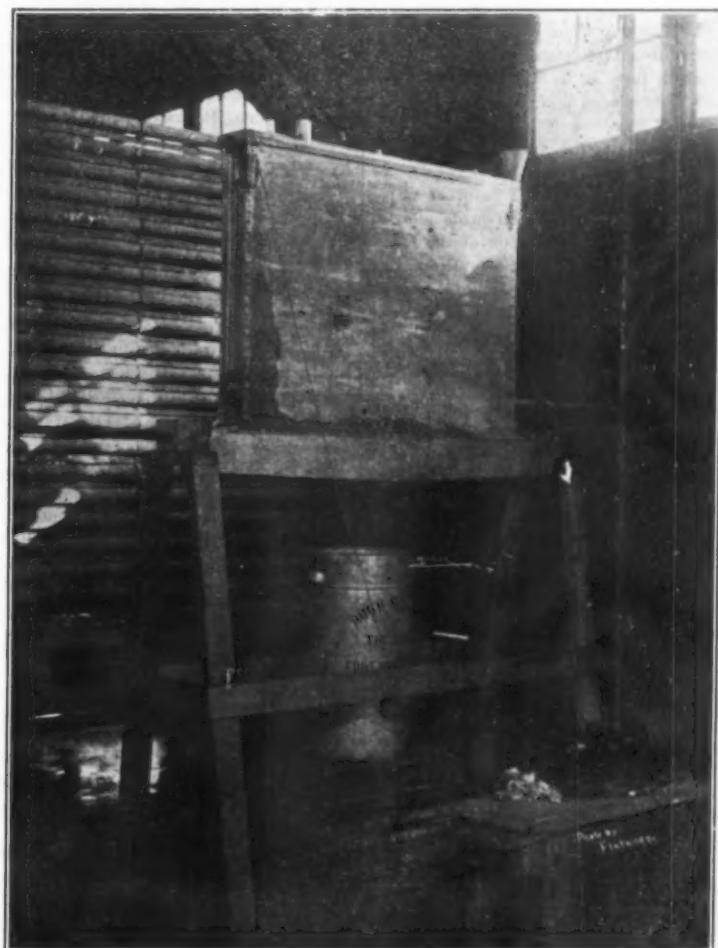
All armature coils are form-wound. As the slots are open, the coils can be readily removed, thus giving a decided advantage over machines having closed slots, in which the coils are difficult to replace in case of accident. The projecting stator yoke and end housings completely protect the ends of the coils where they project beyond the laminated core.

The field poles are built up of steel laminations riveted between end heads and dovetailed and keyed to a spider or hub. The field coils are wound with square wire, which makes a very compact and durable winding. Exciting current is supplied to the field through cast bronze collector rings mounted on the shaft between the field and the outboard bearing. The bearing housing has three arms, as shown in the illustration, thus leaving the space around the collector rings and brushes easily accessible. Each ring is provided with two brushes. The machine illustrated

to follow a fore-and-aft course from the inlet to the outlet at an upper corner.

The steam condenses as it goes against the cooled sides, and only saturated non-condensable gases issue at the outlet. The condensation water trickles down the inside surface, collecting at the bottom, whence the horizontal three-quarter-inch pipe carries it to the hot well. A No. 3 rotary pump, hand driven, circulated water from the catch-can below the flask to the distributing device above. This water bathed the entire surface and fell from the lower edges into a collecting gutter, whence it fell back into the catch-can. From the hot well the distilled water passed through a three-quarter-inch hose to the freezing can without any reboiling or filtering.

Because the installation was not started soon enough, the cans were not filled until 4:30 P. M. on the 19th of December. The temperature of the brine was 18 degrees F., so that the cake pulled for exhibition at



FLASK-TYPE CONDENSER.

has the shaft extended to receive a pulley for driving a belted exciter; they can, however, be furnished without extended shaft. The bearings are of the ring-oiling self-aligning type, and are of liberal dimensions. Both bearings are of the same size.

The electrical performance of these alternators is unusually good. The fields have sufficient margin for handling inductive loads; the efficiency of these machines is high and the rating conservative.

#### Flask-Type Condenser.

After the adjournment of the Southwestern Icemen's Association's convention at Fort Worth, Texas, in December last, the members visited a local ice plant where the Atmospheric Condensation Co. of Kansas City, Mo., had installed a small exemplar of its flask type of steam condenser. An accompanying view shows the flask, three feet high by four feet long with a two-inch connection bringing steam into a lower corner. Baffleplates cause the steam

4.30 on the 21st showed a large void. The second was pulled the next day. The manifest absence of oil in the ice is no doubt due largely to the high efficiency of the homemade oil separated on the exhaust pipe installed by the engineer of the plant.

It is claimed by the inventor that with an installation on similar lines for the ammonia condenser each ton of ice can be produced by the use of less than 600 gallons of either non-scaling or purified water with a maximum ammonia pressure of 180 pounds per square inch.

Result of test with flask condenser: Time, 10 minutes; surface, 24 square feet; condensed water entering hot well, 6 gallons; decrease in collecting can, 3 gallons; temperature circulating water, 183 degrees F.; temperature issuing gases, 150 degrees F. Test using deep-well water for circulation and wasting it: Temperature of well water, 75 degrees; waste, 135 degrees; output of condensation water, 7.5 gallons.

**LUMBER**

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

**To Use Lodgepole Pine.**

The forest service of the United States Department of Agriculture has completed an experiment in the preservative treatment of lodgepole pine for fenceposts. The idea of treating it was suggested by the requirements of forest management on the Henrys Lake reserve in Idaho, as large bodies of dead lodgepole pine, both standing and down, are a serious handicap to the forest there. Press bulletin 148, as issued by the forest service, states that it is essential to remove this timber from the growing forests and by treating it properly it should last 20 years for fenceposts, which is equal to the life of red cedar. Since the success of the preservative treatment has been demonstrated, it is stated that the value of the wood has risen from 25 cents to approximately 40 cents per cord. The treatment was given in a galvanized-iron tank fitted with steam coils, in which from 40 to 50 posts stripped of bark were placed upright. Enough creosote was then run into the tank to submerge the butts for about two and three-quarters feet, heated to 200 degrees F., or a little above the boiling point of water at that altitude, and afterwards allowed to cool. It is the intention of the forest service to establish experimental treating plants where there are bodies of dead timber on the reserves and a demand for durable wood cannot otherwise be met. Experimental work will be conducted with zinc chloride and other processes as the needs of the different regions and the thorough testing of each process may require. As a result of the post experiment, it is understood that a company will undertake the treatment of dead lodgepole pine on a commercial scale in the spring, and will treat and sell not only fenceposts, but telephone poles and posts for irrigation work.

**Buys West Virginia Lands.**

The Hood Lumber Co. of Bridgeport, Ohio, is reported from New Martinsville, W. Va., as having purchased from John Mills a tract of 6000 acres of timber land in Wetzel county, West Virginia. The property is known as the Hilliard tract, and is located on the West Virginia Short Line Railroad near Jacksonburg. It is said to contain from 40,000,000 to 45,000,000 feet of white oak and yellow poplar timber of excellent quality. The purchasing company, it is understood, will arrange at once for the development of the timber by erecting a number of small sawmills at convenient points on the property, the mills to have an aggregate capacity of from 10,000,000 to 12,000,000 feet per year. The company also expects to construct two tramroads, each about three miles long, for bringing the timber to two loading points on the railroad. It is stated that offices have been secured in the Schmulbach Building at New Martinsville, which will be occupied by the company after April 1. Officers of the Hood Lumber Co. are Messrs. C. M. Hood, president and general manager; T. E. Hood, vice-president, and George H. Scheetz, secretary and treasurer.

**Box Factory Rebuilt.**

Announcement is made that the box factory of S. T. Aleus & Co., Ltd., of New Orleans, La., erected to replace the factory of this company which was recently destroyed by fire, has been completed and put in operation. The new factory is one of the largest boxmaking plants in the South, and cost to erect and equip about \$100,000. The dimensions of the main structure are 200x300 feet, warehouse 100x200 feet,

boiler-house 45x60 feet and office 40x50 feet. Its capacity is four carloads of boxes per day, to manufacture which it is estimated that 100,000 feet of lumber will be used. The mechanical equipment of the plant is of the most modern design, the power being furnished by a 500-horsepower Corliss engine and battery of boilers of sufficient capacity to generate more power if needed. The buildings were designed by Emile Weil, architect, and erected under the supervision of Henry Aleus, general manager of the plant.

**To Operate in West Virginia.**

The American Woods Corporation, 1 Madison avenue, New York city, was recently reported as intending to develop timber lands near Belington, W. Va. Regarding its purposes the company informs the MANUFACTURERS' RECORD that it has just organized with an authorized capital stock of \$5,000,000 to take over a number of manufacturing plants. It states that it has options on upward of 100,000 acres of land which it expects to develop, and will erect plants of sufficient capacity to meet its needs. Officers of the company are Messrs. Charles E. Corkran, president; Creed Collins, Pennsboro, W. Va., vice-president; James W. Selvey, Grafton, W. Va., second vice-president; Scott G. Boyce, Owls Head, N. Y., treasurer; F. C. Emrick, Buffalo, N. Y., assistant treasurer, and Frederick Moore, Belington, W. Va., secretary.

**To Erect Sawmill.**

The MANUFACTURERS' RECORD has information that the Longville (La.) Long Leaf Lumber Co., present address Bonami, La., will establish an extensive sawmill plant at Longville. The plant will include a sawmill, planing mill, dry-kilns, tenement-houses and all other necessary structures. Details as to the dimensions of the buildings have not been determined, but the cost of erection and equipment will be about \$400,000. The plant will have a capacity of about 200,000 feet per day, the character of the product being general yard stock, railroad and export timbers. The local manager of the company at present is Mr. B. H. Smith.

**For Helena.**

Twenty-two acres of land have been purchased at Helena, Ark., by the Paepcke-Leicht Lumber Co. of Chicago and Cairo, Ill., and a branch plant consisting of veneer mill, box factory and sawmill will be established. Modern buildings and machinery will be provided, and about 300 hands will be employed. This industry was secured through the Business Men's League and Industrial Commissioner Burks, who have also secured for Helena during the past 60 days the Arkansas Oak Co., the Helena Woodenware Co., the Ford-Johnson Chair Co. and the Missouri & North Arkansas Railroad.

**Cargoes for Kingston.**

The schooner Nannie C. Bohlin cleared last week from Jacksonville, Fla., with a cargo of lumber for Kingston, Jamaica, and the schooner Jacksonville is loading a cargo of about 500,000 feet for the same port. It is understood that the Nannie C. Bohlin will make five more trips to Kingston and the Jacksonville several more, as lumber is in great demand there at this time. The shipments referred to were made by the Cummer Lumber Co. of Jacksonville.

**Parquet Flooring Association.**

The National Parquet Flooring Association, W. A. McLean of New Albany, Ind., president, met in Louisville, Ky., last week in a two-day session. It is stated that the situation as relates to the timber

supply was discussed at some length and the fact brought out that there is at present a scarcity of mahogany, but plenty of oak in the country, these two woods being the principal ones from which hardwood floors are made.

**To Communicate with Stave Dealers.**

Mr. J. R. Newlin of Saxapahaw, N. C., writes the MANUFACTURERS' RECORD that he has lumber for sale and desires to get into communication with dealers in barrel and hoghead staves, etc. He also wants to communicate with dealers in any kind of oak lumber.

**Lumber and Shingles.**

Mr. J. M. Hopper of Leaksville, N. C., wants prices (delivered) on No. 2 pine shingles and finishing lumber for tenement-houses.

**Lumber Notes.**

The Kansas City, Fort Scott & Memphis Railroad Co. (Frisco system) is reported from Pocahontas, Ark., as having contracted for a large number of red-oak ties in Randolph county.

The National Contractors' Association met last week at Anniston, Ala., and adjourned to meet April 30 at Birmingham, Ala. Mr. G. A. Barbee of Senoia, Ga., is the president of the association.

A dispatch from Meherrin, Va., states that the Lunenburg Lumber Co. has secured a contract from the Tidewater Railway Co. for nearly 1,000,000 crossties to be delivered on the right of way of the railroad.

A dispatch from Denison, Texas, states that the Frisco system is arranging to furnish 500 carloads of oak ties to the Fort Worth & Denver Railroad. It is understood that the cars will be sent to Ashdown, Ark., where the ties will be loaded.

The Bluff City Lumber Co. of Pine Bluff, Ark., announces that it has appointed C. L. Browning its sales manager. Officers of the company are Messrs. J. B. York, president; J. F. Rutherford, vice-president, and Robert York, secretary and treasurer.

**Phosphate and Oil Mill.**

It is announced that the Greenwood Phosphate & Oil Co., a branch of the Anderson (S. C.) Phosphate & Oil Co., has completed the construction of its plant at Greenwood, S. C., and put it in operation. The plant, it is understood, will be in charge of W. H. Forston of Anderson, and will have a capacity of 25 cars per day. Electrical power furnished by the Greenwood Water & Light Co. is employed in the operation of the plant.

**Kanawha Loading.**

Coal loading in the Kanawha district of West Virginia amounted to 404,015 tons for the month of January. Included in this aggregate were 289,990 tons which were shipped inland and 1710 tons shipped to tidewater. The loading of coke in the district aggregated 9390 tons, produced as follows: Windsor, 1950 tons; Crescent, 930 tons; Great Kanawha, 1650 tons; Powelton, 3870 tons, and Morris Creek, 990 tons.

The Arkansas Industrial and Immigration Society has been organized with Messrs. G. A. Mays of Texarkana, president; Guy B. Tucker of Little Rock, secretary, and W. W. McLaughlin of Little Rock, treasurer, with W. H. Houghton of Jonesboro, George R. Hayes of Newport, J. H. Hand of Yellville, Harry E. Kelley of Fort Smith, G. W. Donaghay of Conway, J. D. Milner of Pine Bluff and M. L. Moore of Prescott, executive board.

**MINING****Alabama's Coal Production.**

In comparison with figures for 1905 showing the coal production in Alabama for that year, the official statement of State Mine Inspector J. M. Gray as to the output in 1906 shows a decrease of 453,992 tons. With a few of the smaller mines still to be heard from, the figures now available show the production for 1906 to be 11,446,161 tons, while that of 1905 was 11,900,153 tons. In Jefferson county, the largest producing county in the State, the increase was 10,728 tons, and in Walker county 58,146 tons. In Bibb and Tuscaloosa counties the decrease is estimated at 161,141 and 158,057 tons, respectively. The decrease in production is explained by the inability of the railroads to furnish a sufficient number of cars, much time being lost in Jefferson, Walker, Tuscaloosa and Shelby counties. From development work now in progress, however, it is stated that the production for this year will probably reach 14,000,000 tons. The production for 1906, according to counties, was as follows: Bibb, 1,220,534 tons; Blount, 159,963; Cullman, 115,607; De Kalb, 32,834; Etowah, 130,600; Jackson, . . . . .; Jefferson, 5,826,892; Marion, 60,895; Shelby, 157,524; St. Clair, 159,478; Tuscaloosa, 694,192; Walker, 2,877,217; Winston, 10,363.

**Developing New River Coal Lands.**

The MANUFACTURERS' RECORD is advised that the Export Coal Co., recently incorporated with a capital stock of \$50,000, is developing about 900 acres of New River coal lands on Laurel creek, near Quinnimont, in Fayette county, West Virginia. The mining plant has cost approximately \$75,000, and the present output of the mines is about 100 tons per day, but it is expected to increase this production to 400 or 500 tons per day as soon as practicable. There will be no coke ovens. Mr. Carel Robinson is the general manager in charge of operations. The main offices of the company are in Charleston, W. Va., and its officers are Messrs. J. E. Beury, president; Justus Collins, vice-president, and John A. Thayer, secretary, all of Charleston.

**Developing Mines in Alabama.**

The Barney Coal Co., 418-419 Woodward Building, Birmingham, Ala., which was recently incorporated with a capital stock of \$50,000, writes the MANUFACTURERS' RECORD that its mines are located on the Warrior river, in Walker county, Alabama, and that development work has already begun. The company states that it has contracted for steam haulage machinery for its slope, but will probably install electrical haulage within 18 months. Officers of the company are Messrs. J. B. Cavanaugh, president, and T. N. Koehler, vice-president, both of Chicago, and W. F. Hughes of Birmingham, secretary and treasurer.

**Barytes.**

It is reported that Messrs. L. A. Bell and A. H. Eames of Pittsburgh, Pa., and W. J. Wyman of Honaker, Va., representing the Pittsburg (Pa.) Barytes Co., has purchased a site at Nicholasville, Ky., on which to erect a barytes mining and milling plant. It is understood that the plant will cost about \$50,000 and have a capacity of four tons per day. The company referred to is also reported to have leased 75,000 acres of land in Jessamine and Garrard counties which it will develop. Mr. Wyman, it is announced, will be the general manager and superintend the work at the quarries.

# CURRENT EVENTS AS VIEWED BY OTHERS

## Steel vs. Southern Pine.

[*The Iron Age.*]

The curves plotted in the accompanying diagram show the fluctuations in the prices of steel beams and Southern pine timber over a period of years. They bring out strongly the advance in the price of lumber, its resistance to unfavorable conditions of business and its quick response to favorable conditions. They demonstrate that already steel is cheaper than wood for structural purposes where heavy loads must be sustained, and that if the constant, never-receding advance of pine is to continue, as lumbermen confidently predict it must, the time is not far distant when steel will be the cheaper for all buildings requiring the strength that makes desirable the use of one or the other of the two materials. Reinforced concrete must be given an important place in connection with this class of construction, but the experience of those who have used it has varied so materially as to cost and its use is so comparatively young that the price of steel beams is the better as a basis of comparison with the timber.

The two curves are, strictly speaking, relative. That of beams, based on Phila-

delphia quotations, is taken from the diagram published in the *Iron Age* of January 10, showing the fluctuations of prices of crude and finished iron and steel. The price of Southern pine is plotted from the "general run of the yard" price, wholesale, at Boston, Mass., compiled from weekly quotations. The one price is cost per ton, the other cost per 1000 feet. The run of the yard price means that of timber large and small. The larger sizes bring the greater money per 1000 feet. If data could be procured to plot a curve of the price of some one heavy size of timber, the extremes between the two ends of the curve would be even more marked, for the larger sizes have advanced more rapidly than the smaller, as must be the case in the face of a dwindling supply and growing demand. For the general comparison of the two materials, timber and steel, the prices used in the curves afford the fairer basis. In a sense the prices of other kinds of lumber have followed that of Southern pine, but the average increase has not been fully as marked.

The importance of lumber in most industries is such that prevailing high prices have become a material factor of cost. It is a great question with many sides and influenced by conditions which change greatly from year to year as forests become depleted and one variety of wood replaces another in every-day use. In a general way it may be stated that lumber of all descriptions must steadily become more expensive, although the future promises

some important changes in market supplies. The completion of the Panama Canal will bring the Oregon and other Pacific coast timber closer to the markets of the middle and eastern parts of the country. Perhaps a change in tariff relations with Canada may result in timber being admitted free of duty from our Northern neighbor. But such changes are not in the immediate future. When Oregon pine can be shipped to the Atlantic and Gulf States and through the great waterways of the Middle States it will put Southern pine on the basis of competition and should prevent a further rise. But the price when those conditions arrive will be higher than it is today.

Southern pine presents one of the most serious of the lumber problems, especially in its larger sizes, such as are used in structural work. The steadiness of its advance demonstrates this. No descending step has been taken. The curves show that the fluctuations of steel have not been followed, except upward. No response comes to a decline in steel. This is because Southern pine is governed rather more by supply than by demand. Lumber interests no doubt influence these prices,

To support the same load with Southern pine under identical conditions requires the equivalent of a timber 16 inches deep and 28 inches wide, which means two 14x16-inch girders. Figuring the cost of this lumber in the same city, at the same time, on the basis of \$45 per 1000 feet for the wood in the yard (none too great a figure considering the dimensions), means \$55 per 1000 feet erected, or \$41.03 for the equivalent of the steel. Thus the steel has more than \$2 the better in the comparison.

Taking the same distance between posts and the same span, but reducing the load to that of the next smaller standard size of steel beams, 15-inch 42-pound, supporting 157 pounds per square foot, it is found that the cost of the steel is \$25.20, as compared to the \$20.52 for the equivalent timber—a 14x16-inch girder.

In October and November, 1904, steel beams dropped to a point where they were cheaper than Southern pine, in about the same ratio as that of today, for heavy loads. The market was depressed, while timber remained stationary. When steel drops again, if timber retains its present tendency to maintain its price regardless of general conditions, the advantage will

out of order, requiring a hasty resort to hand milking, for which no supply of help would be in readiness, is a serious objection. Tests do not yet make wholly clear whether the quantity of milk drawn in this way equals that obtained by hand milking, or whether this new method may not affect the milk's quality somewhat. At all events, the experiment is interesting. Most inventions come into the world when people become unwilling to do a certain kind of work by hand, so that the price of the labor reaches high figures. It takes high-priced labor to make many kinds of machinery profitable at all. It will be a great many years before the milking machine can be used in Russia, whatever its reception may be among the prosperous farmers of this continent.

## The Terra Incognita.

[*New York Evening Post.*]

Spanish America forged to the front in the news with reports of imminent war in Central America, an insurrection in Argentina and another in preparation or already in being in Venezuela. In spite of last summer's outburst of enthusiasm over the Pan-American Conference and Secretary Root's missionary journey to the Latin, in spite of the absolute necessity of a ship subsidy enabling us to monopolize the trade of South America, it is a fact that we are little interested in the affairs of the republics to the south of us, and that their only chance of attracting notice is by raising a row. Thereupon we send down a white cruiser, on whose clean decks Central America makes peace and renewes, with beautiful optimism, that ideal of a Central American federation and those numerous treaties of amity and arbitration which amuse the foreign concessionary on the hunt for timber lands. And yet it must be that the southern republics produce something besides revolutions, nitre and provincial cedulas. There is an intellectual life stirring. Chile has produced respectable historians; Argentina is ambitiously seeking to develop a new Latin civilization, largely on the French model. Evidently they have an opera, for we hear now and then of Calve coming from Buenos Ayres to New York; and a theater, since Ernesto Novelli, whom New York has not seen, comes to us from the south. How much of all that life do we know?

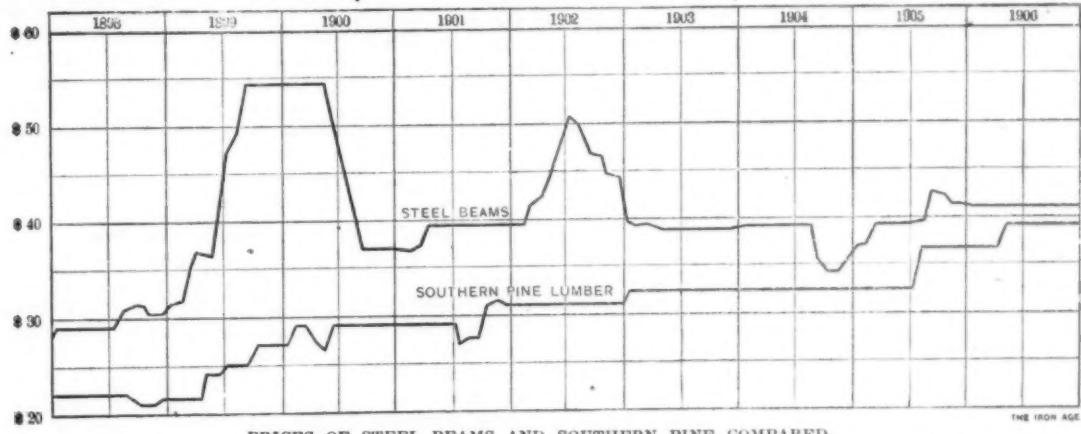
## Southern Iron and Steel.

[*Wall Street Journal.*]

It can be stated, however, that, based on the vast amount of money being spent in developing the iron and steel industry of the South, Alabama will show a very heavy increase in iron production over the next five years. The trouble has been that Alabama has confined its business principally to the sale of pig-iron, and until recently has paid little attention to the diversification of its products.

Now the Tennessee Coal & Iron Co., Republic Iron & Steel Co., Southern Steel Co., Sloss-Sheffield Steel & Iron Co. and other concerns in the South realize that their future depends largely upon the manufacture of the finished article. In other words, they are following out the policy of the United States Steel Corporation in the matter of lessening sales of base products and increasing sales of finished steel.

As an example of the South's activity in the matter of strengthening its position from the standpoint of finished material, the Tennessee Coal & Iron Co. has under construction plants that will probably give it a steel-rail capacity of upwards of 400,000 tons a year. The Tennessee within



PRICES OF STEEL BEAMS AND SOUTHERN PINE COMPARED.

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The importance of lumber in most industries is such that prevailing high prices have become a material factor of cost. It is a great question with many sides and influenced by conditions which change greatly from year to year as forests become depleted and one variety of wood replaces another in every-day use. In a general way it may be stated that lumber of all descriptions must steadily become more expensive, although the future promises

but such influence would probably not be so potent were it not for the manner in which the sources of supply are disappearing before the axe of the lumberman. Two problems have been worked out to show with some degree of exactness the relations between the cost of steel and Southern pine for structural purposes, demonstrating the fact that for heavy loads steel is the cheaper, while timber still has the advantage for lighter loads. The results also prove that timber has to advance comparatively little more to make steel cheaper for even light loads, and lumbermen believe that prices will be at that point at no very distant day. They maintain that the field of usefulness of this class of lumber is so wide that even with steel the cheaper the demand would still be great enough to maintain the ascending curve of price.

For one problem, a bay of a factory building 10 feet between beams and 20 feet span was taken, giving an area of 200 square feet to be supported by a beam either of steel or Southern pine. For the sake of convenience a standard 20-inch 65-pound beam was taken as the basis, supporting a superimposed load of 313 pounds per square foot, making a total of 31.19 tons for the given area. The cost of the steel based on the figures for December, 1906, punched, cut and framed, erected and painted, was three cents a foot, being the actual figured price on a building in a New England city 40 miles from tidewater. The cost of the beam was \$39.

## Milking Machines.

[*Boston Transcript.*]

The Department of Agriculture's bulletin on machines for milking cows, of which 1000 are now said to be in use, should be of interest to those localities where it is almost impossible to get the help necessary for carrying on the farm. In considerable areas of the new provinces of Western Canada dairying has been a lamentable failure, because most of the men who can be hired greatly prefer working in the wheat fields to milking cows, and some of them specify in answering advertisements that they will not take a place where this task is required of them. It is said that one careful man or woman can run four machines, thus milking eight cows simultaneously, but that an additional hand is necessary to carry away the milk and to serve as general assistant. The Agricultural Department, unlike the prospectus of the machine makers, paints the dark side of the picture, too; it shows that the liability of the machine or its engine to get

the next five years will probably spend \$15,000,000 for extensions.

The Sloss-Sheffield Steel & Iron Co. contemplates the construction of finishing mills, and the Republic Iron & Steel Co. has under way a plan for diversifying its Southern production. The Southern Steel Co. will also operate along broad lines under the management of interests identified with the Lackawanna Steel Co.

Of the iron produced in Alabama in 1906, the Tennessee Coal & Iron Co. turned out about 600,000 tons.

#### MONEY IN TREES.

[Edward Everett Hale in *Christian Register*.]

Is it better for the nation to have a million dollars in gold laid by in kegs in the basement of the Treasury or to have a million dollars of woodland which in 30 years will be worth five times what it is worth now? You meet very few people who understand or remember that every European nation now relies largely for its annual revenue on its forests.

Our people do not choose to remember—perhaps they do not like to remember—that a forest, from the nature of the case, can be taken care of by a nation or a State as it cannot be taken care of by an individual. In the first place, the individual wants to see his profit within 5 or 10 years at the outside. The nation, because it never dies, can put forward the question of profit as no thrifty man dares to do.

Nations do not always choose to take this view. But the eternal law remains, "you cannot have your cake and eat your cake." See what happens to such nations. Remember the days when Solomon built his temple from the cedars of Lebanon. Go to Lebanon today and find that the "forests of Lebanon" have dwindled down to a few hundred trees. And then look north and south and east and west from Lebanon to see that the very regions which produced such men as Solomon and David are now, as one of them said, peeled and stripped; that they are regions to which beggars cannot be paid to emigrate. Take Asia Minor—minor with a vengeance! Here is a region which in its time supported such cities as Ephesus and Tarsus and Antioch—a region whose tributes made up such wealth as seems fabulous—the wealth, indeed, of Croesus. And this Asia Minor is now a barbarous province through which adventurous travelers work their way with difficulty, and where they speculate with doubt as to what was the site of one and another of those treasures of the world. For the people did not preserve their forests nor pretend to do so. They killed the bird which laid the golden egg. The mountains were shorn of their beauty and it was more than beauty which was destroyed. The rivers which had made the valleys fertile became the mountain torrents, dry in summer and overfull in winter, which carried devastation in their freshets, and yet which failed the valleys when they needed most of the treasures of rain. The history of the decline of civilization in any region which has a written history is the history of the destruction of its forests.

If in New England today you send to a carpenter and bid him make you a cabinet or a table made from that white pine which was the glory of our forests in the days when Paul Jones fought the Serapis, the carpenter will tell you that it will cost you about as much to use white pine as to use mahogany. Smaller and smaller have become the pine trees which you cut down for your annual service. There were days when your foresters did not touch a tree with the axe unless the tree were 200 years old. To day they can use the little trees for this or that service, though they should not be three inches in diameter.

Here is our own deforested State of Massachusetts. For her railroads and

hospital and other necessities she has incurred large debts, not payable for many years. But these debts are provided for by sinking funds which grow and grow as the years pass by. And when the debts mature money will be ready. Yes, such has been the foresight of our government. But think of the gain to Massachusetts if from year to year she were investing such funds where she is sure of the great alliance of nature—in planting her bare, worn-out wilderness with the forests which will be almost invaluable in a hundred years. Men die and they cannot make provision for what comes after them. But States live. Nature is always kind, and a State can invest with perfect security in its forest lands.

Such a policy as this has commanded itself almost of course to the great States of New York and Pennsylvania. They have learned to rely upon the forests of the future, as Prussia does and Bavaria and Wurtemberg. The United States as a nation need not be afraid of the same policy.

It is not impossible that the five States watered by the Merrimac and the Connecticut, the Saco and the Androscoggin may be called upon to unite in the annual expense of preserving the White mountain district. To preserve the water-power of these great rivers is a duty of this generation, and this water-power can be preserved only by preserving the forests at their headwaters.

#### CONCERNING SUGAR.

[Buffalo Evening News.]

Some estimable contemporaries are passing around the statement that the Cuban sugar crop is going to amount to 1,500,000 tons, and they add that the consumption of the United States is just about that amount. The statement seems to be inspired by those who are interested in shutting Cuban sugar out of American markets unless the full duty on imported sugar is exacted, instead of there being a 20 per cent. reduction of duty in favor of the Cuban product against sugar brought in from any other country.

The sugar consumption of the United States is 3,200,000 tons a year. The mainland produces 650,000 tons, Hawaii 425,000 tons, Porto Rico 215,000 tons and the Philippines 15,000 tons. These are the figures of native production with the addition of actual imports from the island territories. They show the necessity for importing about 1,900,000 tons from foreign countries. It is not surprising that the greater part of that requirement, or 1,300,000 tons, came last year from Cuba taking advantage of the 20 per cent. reduction under reciprocity treaty.

The result of our sugar policy is that domestic sugar is steadily expanding its production, though it has made little gain in percentage of production to consumption in 40 years, and at the same time citizens of the United States have the cheapest sugar of any important nation in the world. In consequence of that situation, American confections of every description are going forth to win the world's markets. But the entire sugar-producing capacity of Cuba can never approach the demands of the American market.

#### THE TENNESSEE-WARRIOR CANAL.

[Mobile Register.]

It is a fact little noted that the Warrior and the Black Warrior rivers that empty into the Gulf at Mobile run parallel for some distance with streams in Blount county that empty into the Tennessee river near Guntersville, but moderate elevations separating them. The geographical continuity of a valley, practically extending from this great river to the Gulf, has long been viewed as holding out an opportunity for the turning of the waters of the river southwest, and the construction of a canal

to the Gulf. Now that the Jefferson county mineral district needs greater facilities for shipment of its products, the idea of constructing the canal is brought again to the front.

#### COTTON AS A GAUGE.

[Springfield Republican.]

Nothing, however, better reflects the great popular consumption of commodities than current cotton statistics. The movement of last year's crop into sight continues very heavy, as do exports, the amount coming into sight last week being nearly double that of the same week last year, and bringing the total up to over 10,000,000 bales, contrasted with 8,084,795 bales to the same date a year ago. As at the same date of the 13,600,000-bale season of 1904-1905, only about 9,000,000 bales had come into sight, there would seem to be good promise of even larger figures for the present season than have as yet been calculated. The world's visible supply of cotton, according to the *Financial Chronicle*, now amounts to 5,505,121 bales, which is the largest ever known for this time of year. Nevertheless, the price of cotton holds firm at the high level of 11 cents and over. Only a market for cotton goods of unexampled strength can explain such a price as against such a supply of cotton.

#### HOW A SECTION GROWS.

[Bluefield Daily Telegraph.]

The growth of the country along the Norfolk & Western is marvelous, but the most miraculous is the development in this section. The Clinch valley and the coal fields of this State show it in a more marked degree. On every hand there are new houses being erected and new enterprises undertaken. At many points the railroad is making changes in its trackage, giving employment to many. The coal-mining interests employ thousands at fair wages, and these enterprises are making improvements and increasing their facilities. The city of Bluefield is making rapid strides toward its 25,000 population. Its growth so far has been wonderful. As an evidence the receipts of its local postoffice are a good indication. The sales amounted to nearly \$31,000 for the year, while the total sales of all the other offices in the county were less than \$12,000. The class of buildings that are being erected are better every year, and Bluefield now has some of the handsomest stores to be found outside the large cities.

#### WELCOMING INDUSTRIES.

[Savannah Press.]

In the enumeration of new industries in Savannah the American Can Manufacturing Co. should be considered. Yesterday the *Press* spoke of the car-wheel works and of the buggy factory. The making of cans is bound to be an important industry in this fruit-growing country, where these articles are so much in demand. Georgia is naturally a great fruit-growing State, possibly the greatest in the Union, and a canning factory erected in Savannah, where materials can be readily obtained and where goods can be easily shipped on account of low freight rates, is bound to become an important enterprise. It will bring skilled workmen here; it will add new interests to the industrial situation, and it will give employment to labor all round.

Savannah must welcome these new enterprises, for they are the beginning of a great industrial movement, and they put the city forward in turning out diversified products. Once confirmed in the tendency to manufacture articles, Savannah will go right along on these lines. It is very much better to have diversified industries than to have controlling overshadowing mills which make one product and which enforce the city to be dependent

upon one class of goods. Savannah is now making many things, and this is the way to progress.

#### OWNERS OF RAILROADS.

[Vice-President Thayer of the Pennsylvania Railroad.]

The Pennsylvania Railroad is owned by more than 40,000 people, 30 per cent. of whom live in Pennsylvania. Forty-seven per cent. of our shareholders are women, and in many cases the dividend is their only source of income. Then there are thousands of bondholders; beyond them are 80,000 employees in the State of Pennsylvania dependent upon the prosperity of the Pennsylvania Railroad for their livelihood.

Therefore, by the usual computation, it is safe to say that approximately 500,000 people—men, women and children—are actually dependent upon the welfare of this company in the State of Pennsylvania alone.

Upon the Pennsylvania Railroad's prosperity depends the prosperity of the other lines in its system, employing over 200,000 men, who, with their families, constitute an army of 1,000,000 or more. Behind them again are the thousands of men, with their families, who produce the coal and other materials which the railroads use. Anything that cripples the railroads injures every one of these people.

When we make these and other facts plain, I cannot but feel that no injustice will be done. In the meantime, let us keep our minds well balanced and not allow ourselves to believe that chaos is coming; let us meet the issue fairly and squarely and frankly. Let us, while suspending improvements for the present, keep up our courage, trusting to the ultimate good sense of the lawmakers and the people for that sympathy and support to which we feel that we are entitled.

#### PAPER FROM PINE.

[New Orleans States.]

Of especial interest to carnival visitors is the Yellow Pine Paper Co. at Orange, Texas, because it presents another solution of the paper problem. Mr. W. H. Stark, president of the paper company, is now a guest at the New Denechaud Hotel.

In speaking of the operations of the plant he said that the output was 10 tons per day, and the mill was constantly worked at its fullest capacity. "We have no trouble in selling every pound we make," said Mr. Stark, "and we do not have far to go to find a market, either. We sell our paper, which is a fine quality of wrapping, right at the nearest Texas and Louisiana markets. We use the refuse from our pine lumber mills in making the paper product, and if it were a matter of business expediency we could convert all of our product into writing paper or newspaper stock. But the bleaching is a process involving additional expense which is not necessary, for we can sell the wrapping paper, for which there is an ever-growing market, as readily as we could sell the better bleached qualities.

"No, we have never looked into the possibilities of making paper out of bagasse, the refuse from the sugar-cane mills, or of making it from rice straw, of which there is such an abundance in both Louisiana and Texas. We have more of the refuse from our pine lumber mills than we can handle as it is, and as the paper mill was installed for the sole purpose of using up a waste product heretofore of no value, there is no reason why we should carry our experimenting to a further stage at this time.

"But I wish to say that in all likelihood there is enough waste product in the sugar mills of the Gulf States and in the rice fields and about the lumber mills to supply a very large quantity of paper and thus add a considerable to an industry, that of

paper-making, which is now generally considered to be short of supplies. And for this reason the attention of capital might very profitably be directed to our possibilities in this direction.

"So far I believe that we are the only successful pioneer in the making of paper from pine refuse to an extent that makes the industry commercially possible and profitable."

#### A Business League's Chance.

[Austin Statesman.]

It would seem that enough has already been said to bring the business public of Austin to see the absolute necessity of holding all we have and to getting all we can in the way of good schools to insure the permanent habitation of the Presbyterian seminary in this city which should become famed for its high-classed schools, seminaries, colleges and universities.

We cannot bring ourselves even to think for one moment that this school, which is one of the first in the land of its kind, will be allowed to take up its abode elsewhere.

Another matter which should address itself to the immediate and earnest consideration of our business public, and especially the Business Men's League, is the proposition made the league by a well-known firm of stock brokers to establish a cotton mill of \$125,000 capital stock, \$50,000 of the preferred stock of which is to be subscribed by the business men of Austin, on which amount of preferred stock the promoters guarantee an annual dividend of not less than 6 per cent., the subscription to be paid in 10 per cent. instalments.

This proposition is worthy our best consideration.

A cotton mill would mean much to this city.

Cotton in the bale would bring on the streets of Austin from \$2.50 to \$5 more per bale than it now brings. It means a better market for all kinds of live-stock and country produce; it means more laborers and more merchants; it means the expenditure of thousands of dollars here per month, their proposition involving a weekly pay-roll of not less than \$1500; it means an addition of several hundred people to the city's already increasing population.

#### On Town Building.

[Mid-Continent.]

The intense rivalry which exists between the different cities in the Indian Territory, and the ambition which it has to increase its population up to the highest possible point, there is grave danger in overdoing the matter. A city, like an individual, must have a certain and sure source of income if he or it would live and prosper. Many of the towns which, because of the fact that they are outside of natural fuel districts, can never hope to become a manufacturing center, have built their town up so that it has sufficient business facilities to supply the needs of a highly-developed farming country, and still they are pushing it. The farmer has not come, nor will he come until he can obtain title to the Indians' land.

Other cities which are natural distributing points, and which besides are located in the midst of coal, oil or gas districts, have built up to the needs of a farming community, but have gone on erecting both warehouse and dwelling for the farmer and manufacturer, while neither has put in an appearance to any great extent. As long as building continues and the money from that source is distributed, cities will have a seeming prosperity, but when it ceases, what then? No man who is at all a keen observer can deny the fact that in many instances there are cities in the Indian Territory where the inhabitants, not only in building operations, but in the price they demand for lots, have heavily

discounted the future, and also that population is not equitably distributed. Urban population certainly exists in large numbers, but the suburban has not yet arrived, at any rate an equipoise has not yet been established between the two.

#### Transportation Interests.

[Nashville American.]

The idea that railroads are owned by a few individuals is erroneous. There are thousands of investors in this class of property, including farmers, merchants, bankers and all classes of investors, great and small. There are tens of thousands of such persons. In making costly improvements railroads must raise the money by issuing bonds or security of some sort. It is not easy to sell these at a fair price in the face of hostile sentiment or legislation. Railroads cannot be injured without injuring the public. Their true interests are not hostile, but largely mutual. They are peculiarly and closely allied. Justice should be required of the railroads, but there should be an intelligent knowledge of what justice is in the premises. In the matter of freight transportation there are many vexatious delays, but, so far as we can see, and we have ordinary knowledge of the situation, the roads are doing all in their power to remedy temporary conditions, and are anxious to give the best possible service. The conditions are not the same on all roads, but all are suffering more or less from certain similar causes. The situation is far worse on most of the roads in the Northwest than it is in the South.

#### Alabama Water-Powers.

[Opelika Post.]

In 59 of the 67 counties of Alabama water-powers are used. Although most of the plants are small, they aggregate over 33,000 horse-power, and yet they utilize but an insignificant fraction of the power available in the State.

A strong impetus to the development of the powers has been given by the United States Geological Survey, which for a number of years has been making measurements of the amount of water flowing in the streams in order to obtain a safe basis for calculating the low-water volume at all seasons of the year, and thus to determine the value of the streams for industrial purposes. The costly failures that have resulted from lack of such minimum flow data afford abundant evidence of the need for investigations of this character.

Most of the developed water-powers of Alabama are conveniently located for running manufacturing plants of various kinds and also for generating electricity that can be transmitted to cities for power, light, etc. The larger powers are made still more valuable by their proximity to important railroads and to water transportation. The developed powers are not, however, more favorably situated than many of those that are not yet utilized. At certain sites on the Tennessee, Cahaba and Coosa rivers there are possibilities of enormous development. Thirty-one locks on the Coosa are capable of furnishing from 1300 to 4500 horse-power each, or an aggregate of over 100,000 horse-power during the low-water season of an ordinary year.

Seven power sites on the Cahaba could be made to furnish from 500 to 1100 horse-power each, and four shoals on the Tennessee river would yield in the driest years a total of over 90,000 horse-power, which in average years would be more than doubled.

#### Pennsylvania Coal Lands.

[Pittsburg Dispatch to New York Sun.]

The Tower Hill Connellsville Coke Co., organized by capitalists of Uniontown, has bought 2000 acres of coal lands in Luzerne and Redstone townships for \$3,400,000, which it will immediately develop. The

company will erect 1000 modern ovens. George D. Howell of Uniontown is president of the company.

#### Hydraulics in Africa.

[Cassier's Magazine.]

The question of the development of the hydraulic power of the Victoria Falls of the Zambezi, and its electrical transmission to the Rand, is still a matter of interested discussion. The plan involves the construction of a line 600 miles in length, capable of delivering 30,000 horse-power, but the details are not definitely settled. If, as is proposed, three-phase current at 150,000 volts is used, the problems of handling such a current at such a pressure will exceed anything which has yet been attempted. It is proposed to use aluminum for the line, the conductors being placed at the angles of a 14-foot equilateral triangle, the supports being steel towers 60 feet high. These plans may yet be modified, and it has been suggested that the Thury direct current may be employed, according to the general system described by Mr. Wilkinson in his article in our last issue.

It has not yet been determined whether the electrically-transmitted power can compete commercially with steam-driven generating stations nearer the point of utilization; but at least one element, the steam-power plant, appears to be in a position to demonstrate its efficiency before long, as a steam-power station is to be erected at Vereeniging, about 35 miles from Johannesburg, where both coal and water are available, leaving the development of the long-distance plans and the Zambezi hydro-electric station to be worked out hereafter.

#### Trend Toward Factories.

[Galveston News.]

The growing tide of immigrants flowing into Texas during recent years and the almost miraculous advancement which the State has made in every branch of commerce and agriculture are today subjects of comment and encouragement the world over. It is believed by those who have studied the subject that no country in the world's history has been more prosperous than Texas is today. In spite, however, of this great prosperity, there is one feature (a most notable and indispensable feature) of industrial improvement which, though it has often been referred to in the papers, and though every day we perceive new signs of its advancement, has never received its proper share of attention.

The Texas producer is today, as he has ever been, compelled not only to employ foreign artisans and aggrandize foreign capital, but to incur the expense of transporting many of the products of his labor and of his field thousands of miles to and from the place of manufacture in order that they may be converted into articles suitable for consumption. Millions of dollars are thus contributed annually to the revenues of distant States and foreign countries.

Compared with many other States of the Union whose productive capacity of material for manufacture is far less than that of Texas, the number of manufactures operated in this State is astonishingly and most discreditably small. It cannot reasonably be doubted that capital sufficient for the establishment and operation of manufactures large enough to accommodate their respective communities could easily be secured by a little enterprise and industry, and neither can it be reasonably doubted that investments of this kind, properly made and sustained, would be productive of reasonable profits.

This is a need of paramount importance, an indispensable requirement to the general harmonious commercial and financial advancement of the State, and it is to be

hoped that capitalists on every hand will realize the importance of the possibilities presented by this line of investment, and that the present year may mark a sharp turn away from the old policy of giving away raw material and paying the freight besides, toward the safer and better plan of reducing the raw material to the finished product hard by the field where such material is produced, and within reach of the consumers of such finished products. The time has come for a general turn toward manufacturing.

#### Night Schools.

[Knoxville Sentinel.]

A report of the city schools' work in Nashville, just issued by Superintendent Weber, discusses the splendid results that have been attained in night schools conducted as a part of the Nashville public-school system. This is a line of work that might be taken up with profit in Knoxville. It is true the Central Y. M. C. A. is offering a splendid course of training for youths and young men, but even this association is not able to reach or to accommodate all those who might and should be enrolled in night-school classes. The work was first undertaken in Nashville seven years ago, two schools being opened in different localities. The attendance has been augmented year by year, until last year one school was established in each vicinity in which it was believed it would do good.

Many boys and girls of school age, by force of circumstances, are compelled to leave the schoolroom and enter stores, offices, factories or other lines of commercial or industrial life, to assist in earning a livelihood for their families. The educations of these boys and girls are cut short, due to thus leaving school, some as early as the third or fourth grades. With a system of night schools provided in various parts of the city, such boys and girls as are denied the privileges of attending school in the day will find educational opportunities open to them at night, and without expense as the day schools are conducted.

This is a departure, in a sense, and yet it is a plan worthy of the consideration of the Knoxville Board of Education, even though the school appropriation is limited. It is the public's duty to provide school facilities for every boy and girl in so far as it is possible to do so, and especially for those who must cultivate the mind simultaneously with earning means with which to maintain the family, if they would possess even an elementary education.

#### Florida for Pleasure.

[Florida Times-Union.]

Today the flag-to-flag race begins at Miami—the race to Nassau. Speedy motor boats built to withstand the rough play of ocean in its most frolicsome mood will contest for the speed crown of maritime sports. The gunboat Scorpion is ready to act as guardian and give ready aid to the daring amateur sailors should they need it. If the race is a success it will be but one in a series of such events.

With the completion of the East Coast Canal from Jacksonville to Miami, at least, and the automobile races set for a later date, next year will see Florida enter fairly on her career as the winter playground of the world. The canal will make Jacksonville in a measure the capital of winter outdoor sports. Pleasure boats will assemble here in numbers for the races on that canal, or to take advantage of it for safe travel to St. Augustine, Daytona, Miami. Yachts will bring spectators for the aquatic races and owners and manufacturers of power boats will send an ever-increasing number of power boats to compete in the races, with a wide and sufficiently deep canal, hundreds of miles long, in which to safely try their mettle. Old ocean will again lovingly smooth off the

Daytona-Ormond beach for the automobile races, as he did this year, and if the plans outlined in the *Times-Union* are adopted there will be no great shows in New York or Chicago to interfere with the attendance of the great pleasure machines.

Thus next year will see the beginning of annual pleasure events for which all that went before were but preparations, great as was the interest of the world in them. Florida, that feeds the country with healthful food in the winter, will open her gates to the world for healthful sports season after season with a greatly-enlarged playground for aquatic and seaside speed contests.

#### Servants.

[Macon Telegraph.]

Since the immigration movement is now assuming definite shape, the subject is being pretty generally discussed. What effect it will have on the negro servants cannot be told, for the reason that it is too early. The negroes are not taking the thing seriously, and probably will not do so until the immigrants begin to arrive.

To illustrate the difference in modes of work, the following was told by a gentleman of Macon, who has had opportunities in the West of seeing white servants and in the South of seeing negro servants at work:

"I called on a friend while in the West to dine with him. He had a Swedish girl as help, and the first thing I noted was that she was so extremely neat. She brought in the soup and went about preparing the second course of the dinner. As fast as she removed the soup platters she dropped them in a pan of hot water. While we were disposing of the second course she was washing and wiping the soup plates, and had time to prepare the third course. Then she placed the plates used in the second course in the hot water, and so on all through the dinner. After the meal had been eaten we adjourned to the sitting-room for a smoke. When we had finished our cigars we had occasion to pass through the house, and there on the back veranda, engaged in sewing, was the Swedish servant. By her system of clearing the dishes as the meal progressed she had performed all her table work, eaten her own dinner and was now using her own time in fancy needlework.

"Very different is the method of work with the negro servant we have in Macon, and what we have here is the same all over the South. Not a dish is cleaned until our meal is finished and the help has eaten hers, and it is often the case that the dishes are not cleaned until time to prepare the next meal."

One gentleman said that at present the one trouble in the way of foreign help is that owing to the few there comes a loneliness, a homesickness, that brings about discontent. To illustrate this he said:

"A Macon lady was complaining to an Atlanta lady of the trouble she was having with unsatisfactory negro help, whereupon the Atlanta lady said as she had recently secured some German girls she would lend her a girl for awhile. The kind offer was accepted. But the girl, taken away from her companions, and speaking little or no English, became lonesome, and, of course, discontented. Then a happy thought struck the Macon lady. Taking the girl in her carriage she sought the home of one of Macon's best German citizens and explained how she was longing to hear German spoken and to talk with people from the dear old Fatherland. Good-hearted as all Germans are, the family readily received the girl, and now she is happy, because she has friends and companions of her own kind. Of course, when the time comes when there will be plenty of companions there will be no trouble of this kind."

#### Houston Ship Channel.

[Houston Daily Post.]

When the city officials appropriated \$50,000 for the improvement of the Houston ship channel it was not their purpose to spend that sum of money and then stop.

This \$50,000 is only a starter. Mayor Rice and the present commissioners intend to set the pace. They propose to give Houston a ship channel right to the foot of Main street. They may not be able to accomplish this during their tenure of office, notwithstanding the fact that there is not the slightest indication that there will be a change in municipal affairs inside of the next two years, but during the next two years they will have set such a pace toward the consummation of their object that those who follow them will find that Houston is so engrossed in the improvement of the ship channel that the citizens will demand of every administration that the good work be kept up.

Of course, it is expected that the United States Government will aid in the work, but Houston needs the ship channel. The need is imperative, and cannot await the red-tape methods of the Government.

"Suppose we had such a depth of water that a large schooner could come up to the foot of Main street and unload its hundreds of tons of freight at the Houston docks, right in the heart of the city," stated Mayor Rice yesterday. "Don't you know that it would be the greatest thing that could possibly happen for this city? Talk about your freight rates! Why, our business men would be able to go right into the territory of St. Louis and compete with the jobbers of that city. Fifteen feet of water will bring that about. We will have more than that."

"It takes the strangers who visit Houston to see the possibilities of this ship channel. The members of the legislative committee who went down the channel last Saturday with me realized the possibilities of this body of water. Those who saw it then for the first time marveled that it had not been utilized before. One of them suggested that Houstonians go to Austin and secure an amendment to the charter giving the city the right to levy a special tax for the improvement of this arm of the sea.

"We expect that the county will do its part toward the improvement of the channel. There is no reason why it should not, and there is every reason why it should."

#### Schwab Seeks Apprentices.

[New York Times.]

By direction of Charles M. Schwab, the Bethlehem Steel Co. has sent men to cities and towns of Eastern Pennsylvania to induce boys of proper age and physique to become apprentices at the Bethlehem Steel Works. Mr. Schwab is spending \$12,000,000 in enlarging the plant, and within two years will increase the number of employees from 7000 to 12,000. Courses of instruction include armor-plate making, the machining of cannon and projectiles, brass, iron and sand molding, bridge and furnace construction and about 50 other distinct trades. A technical school will be established at the works to instruct the boys.

#### Work of the Immigrant.

[Charleston News and Courier.]

Wherever the immigrant has settled there has been a marvelous development of the resources of the country. One-half the wealth of the United States has been produced through the work of aliens who have been brought to the United States. Without the industry of these people the West could not have been developed, and with the introduction of well-selected immigrants from the agricultural regions and manufacturing centers of Europe an impetus would be given to the development of

South Carolina and the other Southern States which would make this region of the country the richest and most productive in the world.

#### Appalachian Mountaineers.

[J. M. A. in New York Sun.]

For many years I have lived among the people of the Appalachian mountains, constantly on the move, frequently seeking shelter or supplies among them, in one of the most isolated and typical districts, Western North Carolina and Northeast Georgia. In all those years and under all circumstances I have constantly met with genuine hospitality, pleasant treatment and frank speech.

On one occasion, hemmed in by a rushing torrent, the rain falling with equatorial solidarity, through the darkness I caught a glimpse of a moving light. Tethering my exhausted and terrified horse, I scrambled after the disappearing light and soon unexpectedly found myself in the midst of a moonshiners' camp, surrounded by a group of startled lawbreakers. The surprise was great, even dangerous, yet after a quickly spoken explanation of my plight, the fact that I was a "furriner," a Yankee, not a "revenoo" or a "spy," secured for me hospitality and the best they had, and during my 24 hours enforced stay a glimpse into a strange world often exploited in print but never adequately chronicled. Three of these men had been convicted of moonshining, and it was in my power, if permitted to leave, to cause their arrest for a reward and probably bring down upon them a sentence in a Northern prison, which they dreaded worse than death. As I rode away when the waters had fallen and waved my farewell I had no fear of the bullets that might have stopped my tongue forever.

Among the 2,000,000 of these people who cling to the narrow valleys and the sterile hillsides of the Appalachians south of the Pennsylvania line there are men of many origins and types. The men must have courage and honesty, the women chastity. Those who are lacking in these attributes are as much outcasts among their fellows as the negro slave dealer was among the gentry of the South in the forties.

They are poor, very poor, if judged by a standard common in Ohio or Illinois. The yearly cash or barter expenditures for a family of 10 seldom exceed \$100 among those distant from towns or railroads. Yet you can leave your money or valuables with them as safely as in any deposit vault in New York city, and your life is far safer.

A million dollars intelligently put to service among these people would do more for them and for the national welfare than all the \$32,000,000 Mr. Rockefeller gave away the other day. I am neither a sky pilot, an educational sharp nor a literary exploiter, but I have both observation and logic in my makeup, and I would like to tell some man with the necessary millions and the inclination how to do it.

One hundred thousand men from these mountains joined the Union armies in the sixties, a decisive factor in that great conflict for the nation's life. Few of these draw pensions, because when the fighting was over they hurried home to care for and often to avenge the injuries of their kin. They did not often wait for the tedious formality of an honorable discharge; hence they are marked deserters on the official rolls at Washington.

Common gratitude and selfish patriotism should unite to aid these people to get into the procession of progress. Ferocious and dauntless killers of men certainly abide among them, yet of the many homicides which have been described to me by neighbors who knew, I have never heard of one where the motive charged was mercenary.

The killer in a fair fight generally escapes the penalty of the law, often to meet death in the feud that follows. But the ambusher's fate is never uncertain. Sometimes rapid and long-continued flight saves him, and many a death shot in Texas or Oklahoma is but an echo of shots fired in these mountains.

#### Ginseng in China.

[Daily Consular Reports.]

Vice-Consul Rea Hanna of Amoy furnishes the following facts about the market for ginseng in China:

American ginseng in China is handled entirely by Chinese firms; hence it is rather difficult for the producer to establish direct connections. All business is conducted through a middleman, who appropriates a large share of the profits. Another difficulty is the Chinese method of grading the roots. Ginseng that is shipped from America as first quality on arrival may vary through several grades, according to the standard set by the middleman, who sorts, ties and prepares it for the market. Large roots running 10 pieces to the caddy (one and one-third pounds) and of firm consistency are considered the best, and bring \$40 to \$45 Mexican (\$20 to \$22.50 gold) per caddy. Other qualities running more pieces to the caddy bring varying prices down to \$25 Mexican (\$12.50 gold) per caddy.

Many persons ask why cultivated ginseng is considered of poorer quality than the wild. The Chinese made no distinction as regards this point, but in the grading the cultivated product seems to fall lower in the scale, on account of its being less firm in consistency than the wild. A spongy root is practically worthless. If the ginseng is not well packed and absorbs moisture in transit it also lowers the grade materially. On account of these difficulties to be overcome, it would seem advisable to sell through brokers in New York or San Francisco. There is always, however, a good local market for American ginseng in China. (Names of Amoy ginseng dealers are on file in the Bureau of Manufactures.)

#### Where Coal Is Wanted.

[Coal Trade Journal.]

One of the chief difficulties which has operated to prevent the development of a permanent American coal trade in the Mediterranean has been the fact that colliers sailing from the United States have not always been able to get return freight in sufficient volume to make the business profitable save under exceptional circumstances. I am now advised by Raoul Imbert, administrator of the Societe des Bauxites de France, 140, Rue Montaux, Marseilles, that his company will forward 30,000 tons of bauxite to Philadelphia during the year, and desires to obtain return cargoes of coal to that amount, for which a market has been arranged, provided American terms make the business possible. By controlling both outgoing and incoming freight Mr. Imbert feels that no difficulty should attend this matter, and he will be glad to hear from responsible American miners and shippers of coal from the port of Philadelphia.—Robert P. Skinner, Consul-General, Marseilles.

#### Motor Boats in Brazil.

[Daily Consular Reports.]

Consul George A. Chamberlain of Pernambuco thinks there is a good opportunity in his consular district, also in Rio de Janeiro and Bahia, for the sale of motor boats. The best way to sell, he says, is to send a traveling agent or salesman. He sends the names of parties who may be induced to act as agents, among them one American firm. These may be obtained from the Bureau of Manufactures.

# Construction Department

## TO OUR READERS:

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

### ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

### WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

### ALABAMA.

Athens, Ala.—Road Construction.—County Commissioners have ordered an election to be held March 23 to vote on the issuance of \$130,000 of bonds for building roads in Limestone county.

Atmore, Ala.—Electric Plant and Ice Factory.—A company has been formed with capital stock of \$12,000 to establish five-ton ice factory and electric plant furnishing about 1200 lights. M. M. Brooks is president, W. S. Lowery vice-president and W. S. Brantley secretary-treasurer. (Recently erroneous-ly reported under Georgia.)

Bessemer, Ala.—Street Paving.—City has nullified contract awarded to Bigler & Co. for 12,000 yards of street paving. New bids will be advertised for and opened on March 19.

Birmingham, Ala.—Water-power Electric Plant and Water Supply.—It is proposed to develop the water-power of the Locust fork of the Warrior river and transmit 25,000 horse-power to Birmingham by electricity; also to supply Birmingham by means of a gravity canal with water for industrial and domestic purposes. Two surveys have been made, the Locust fork property has been purchased and options have been secured on lands extending 12 miles along the Warrior river. For information address E. J. McCrossin, Woodward Building, Birmingham, and John L. Ray, Albertville, Ala.

Birmingham, Ala.—Iron Mines.—Red Ore Iron Co., reported incorporated last week with \$60,000 capital stock, will open a mine on Red mountain, mining red hematite ore. Practically all the equipment has been purchased. Wm. M. Byrd, Jr., is president and R. K. Edwards secretary-treasurer.

Birmingham, Ala.—Bridge Construction, etc.—Atlanta, Birmingham & Atlantic Railroad Co. has let contract to American Bridge Co. for building about 70 steel bridges, which includes all river and creek crossings between Birmingham and Montezuma, Ga., and between Chalybeate and Atlanta, Ga. The railroad company has charge of the construction of all buildings on its line of

road, using concrete. All the freight depots are being built with concrete walls and tile roof. All the designing and architectural work is being done in the office of Alex. Bonnyman, chief engineer, 302 Empire Building, Atlanta, Ga. Geo. Dole, Wadley, Electric and Gas Building, Atlanta, Ga., is second vice-president and general manager.

Birmingham, Ala.—Viaduct.—The Seaboard Air Line Railway and the various railroads entering Birmingham are reported as considering the building of a viaduct 2800 feet long to cover over 100 tracks at 28th street. W. L. Seddon, Portsmouth, Va., is chief engineer of the Seaboard Air Line.

Birmingham, Ala.—Art Glass.—Southern Art Glass Co. has been incorporated with \$15,000 capital stock. Alvah Lewis is president and John B. Oates secretary-treasurer.

Birmingham, Ala.—Brick works.—Copeland-Englis Brick Co., organized by John R. Copeland and associates, is now building plant. M. W. Blair of the Luce Engineering Co. drew the plans and specifications for plant and is superintending the construction.

Birmingham, Ala.—Power-plant Improvements.—Reported that the Birmingham Railway, Light & Power Co. is installing additional machinery, including a battery of boilers of 6000 horse power, a 2000-kilowatt railway unit, increasing power for railway department, and 750 kilowatt Edison system for the electric-lighting department.

Clayton, Ala.—Cotton Mill.—Incorporated: Barbour Cotton Mills, capitalized at \$50,000, by Robert Mouthrop, G. L. Comer, J. F. White and others.

Columbiana, Ala.—Iron Mines.—Columbiana Ore Co. has been incorporated with \$200,000 authorized capital stock by DeCourcey W. Thom, 822 Equitable Building, Baltimore, Md., and associates.

Cordova, Ala.—Coal Mines.—Barney Coal Co., reported incorporated January 31 with \$50,000 capital stock, has begun the development of coal properties in Walker county. It proposes to install electric haulage within 18 months. The present haulage for the slope is to be by steam, the machinery having been contracted for. J. B. Cavanaugh is president, T. N. Koehler, vice-president, both of Chicago, Ill., and W. F. Hughes of Birmingham, Ala., secretary-treasurer; main office, Birmingham, Ala.

Crichton, Ala.—Ice Plant.—Bay Shore Ice & Fuel Co., reported incorporated February 14, will establish eight-ton ice plant. A frame building 25x85 feet will be erected. Charles A. Lanning is president and Herbert M. Stein is secretary-treasurer.

Gadsden, Ala.—Pumping Station.—E. B. Fitts & Co., Atlanta, Ga., have contract to build a \$10,000 pumping station for the Alabama City, Gadsden & Attala Railway; also a 2000-foot pipe line from pumps to power house.

Huntsville, Ala.—Knitting Mill.—Reported that the Rowe Knitting Co. will add 2000 spindles.

Mobile, Ala.—Winery.—American Wine Co. has been incorporated with \$10,000 capital stock by Sigmund Kohlman, Abe S. Kohlman and Julia E. Kohlman.

Montgomery, Ala.—Cement Veneer Block.—Benjamin Ives of Chicago, Ill., it is reported, is considering the establishment or plant to manufacture a new cement veneer block.

Opelika, Ala.—Gas and Electric-light Plant.—Construction work will probably soon begin on gas and electric-light plant, franchise for which was recently granted to H. L. McKee.

Prattville, Ala.—Water-works and Sewerage System.—Solomon-Norcross Company, 1622 Candler Building, Atlanta, Ga., has been engaged as engineer in charge of the construction of water-works and sewerage system, for which \$40,000 of bonds were reported voted on December 27.

Soldier Creek, Ala.—Lumber and Turpentine, etc.—Perdido Bay Co. has been incorporated with \$30,000 capital stock by George C. Randolph, Rittenhouse Moore, Amanda Moore and others.

Somerville, Ala.—Sawmill.—R. S. DeWitt will rebuild his sawmill recently burned; building will be 30x60 feet in size.

### ARKANSAS.

Batesville, Ark.—Sewerage System.—City will let contract March 5 for construction of sewerage system; estimated cost of work, \$13,000. John Q. Wolf is secretary Board of Commissioners.

El Dorado, Ark.—Mill.—Arkansas Mill Co.

has been incorporated with \$25,000 capital stock by George S. Miles, John R. Holmes, G. G. Walker and J. A. Craig.

Felsenthal, Ark.—Hardwood Lumber.—Felsenthal Hardwood Lumber Co. has been incorporated with \$10,000 capital stock by Theo. B. Miller, Omer Milkey, Adolph Felsenthal and Isaac Felsenthal.

Fisher, Ark.—Land Improvement.—Becker Land & Development Co. has been incorporated with \$5,000 capital stock by Conrad Becker, R. L. Cowan and George N. Becker.

Fort Smith, Ark.—Fuel Company.—Smokeless Fuel Co. has increased capital stock from \$12,000 to \$27,000.

Helena, Ark.—Veneer Mill, Box Factory and Sawmill.—Paeckle-Lefsch Lumber Co. of Chicago and Cairo, Ill., has secured 22 acres of land on which to locate veneer mill, box factory and sawmill.

Hot Springs, Ark.—Land Improvement.—Chartered: Dobbins & Eddy Land Co. with \$30,000 capital stock, by W. H. Dobbins, F. H. Eddy and Benjamin W. Eddy.

Horatio, Ark.—Coal Mines.—Clear Creek Mining Co. has been organized for the development of coal properties.

Little Rock, Ark.—Machinery.—Model Machinery Co. has been incorporated with \$10,000 capital stock by Joseph Berg, John J. Baskin and O. M. Straube.

Osceola, Ark.—Water-works.—Town has voted a \$30,000 bond issue for constructing water-works. Sam Bowen is Mayor.

Stuttgart, Ark.—Bending Plant.—J. M. Skinner, H. Hegner, C. V. Skinner, Frank Anderson, E. L. Hegner and Mrs. J. S. Wright have incorporated the Arkansas Bending Co. with \$30,000 capital stock.

Warren, Ark.—Manufacturing.—Peerless Manufacturing Co. has been incorporated with \$25,000 capital stock by R. H. Scobey, A. B. Anderson and O. W. Wheless.

### DISTRICT OF COLUMBIA.

Washington, D. C.—Automobiles.—The DuPont Garage Co. has been incorporated with capital stock of \$50,000 to deal in automobiles by W. S. Washburn, president, 1223 M street N. W.; G. P. Sacks, vice-president, 2301 1st street N. W.; C. F. Sponsler, secretary, and R. A. Kleck, treasurer.

Washington, D. C.—Automobiles.—The Luttrell Company, 1711-1713 14th street N. W., has been incorporated with capital stock of \$10,000 to deal in automobiles by Samuel A. Luttrell, J. Alwin Muehleisen and E. Catsby Rowzee.

### FLORIDA.

Arcadia, Fla.—Electric-light Plant.—Arcadia Electric-light, Ice & Telephone Co. is reported to install a series arc circuit. Edward Scott is manager.

Fernandina, Fla.—Phosphate Elevator.—Reports state that the Seaboard Air Line Railway Co. is preparing to overhaul and enlarge its phosphate elevator, and will also improve its facilities for handling coastwise lumber shipments. W. A. Garrett is general manager; offices at Norfolk, Va.

Gainesville, Fla.—Electric-light Plant.—City has issued \$50,000 of bonds for the establishment of electric-light plant. W. R. Thomas is Mayor.

Jacksonville, Fla.—Railroad Machine Shops, etc.—Seaboard Air Line Railway is reported as having ordered plans and specifications prepared for its proposed machine shops, which will be operated by electricity and cost more than \$500,000. The company's yards have been enlarged and improved, and its betterment plans include building modern coaling station, building two modern slips to facilitate lumber exporting operations, etc. W. A. Garrett is general manager; offices at Norfolk, Va.

Pensacola, Fla.—Improvement Company.—DeLuna Improvement Co. has been incorporated with \$75,000 capital stock. Henry Hyer is president, Henry M. Yonge vice-president, F. F. Bingham secretary and W. A. Blount, Jr., treasurer.

Starke, Fla.—Sawmill.—James Reynolds has purchased the sawmill plant of Bryan & Alvarez and will continue its operation.

St. Petersburg, Fla.—Automobile Works.—Everglade Automobile Co. has been incorporated with W. K. Cleveland, president; F. E. Muller of Tampa, Fla., vice-president, and A. T. Mullins, secretary.

Tampa, Fla.—Lumber Piers, Bridges, etc.—It is stated that the Seaboard Air Line Railway, in pursuance of its plans for improv-

ing its export facilities at Tampa, has purchased Grassy Island, one and one-quarter miles long, and will develop this property by erecting piers and accompanying mechanical equipment for handling lumber, phosphate and other products. The machinery will include elevators for loading and unloading ships. Contract is also reported as to be awarded soon for the construction of a Scherzer rolling lift bridge to connect Grassy Island with the mainland. W. A. Garrett is general manager; offices at Norfolk, Va.

Tampa, Fla.—Plumbing Supplies.—Coates Plumbing Supply Co. has been incorporated with \$30,000 capital stock. E. W. Coates is president and treasurer, W. M. Smith vice-president and Oscar Warrell secretary.

Tampa, Fla.—Cold-storage Plant, etc.—Florida West Coast Cold Storage & Live Stock Co. has been incorporated with \$30,000 capital stock. Robert H. Bryson is president, Jesse H. Ryals vice-president and W. E. Smith secretary-treasurer, all of Winter Haven, Fla.

### GEORGIA.

Albion, Ga.—Cotton Mill.—Southern Manufacturing Co. let contract to T. J. Nichols for erection of additional mill building lately noted; also for erection of operatives' cottages. It has also awarded contract for the new machinery, including 1250 mule spindles, 6072 ring spindles and 3340 twister spindles, and for electric motors. All other contracts have also been signed. (This company mentioned some weeks ago as contemplating to enlarge plant.)

Atlanta, Ga.—Furniture, Screen Doors and Windows.—Screen & Cabinet Manufacturing Co. has been incorporated with \$50,000 capital stock by W. H. Zachry, A. B. Ware and J. E. Hale.

Atlanta, Ga.—Hay Presses.—Watkins Hay Press Co. has been incorporated with \$5000 capital stock and privilege of increasing to \$25,000 by E. H. Wilson, J. L. Gregory and T. C. Perkins.

Augusta, Ga.—Water-power Electric Plant.—The Twin City Power Co. is reported actively preparing to arrange for the development of its water-power property on the Savannah river above Augusta, Ga. Hugh C. Middleton is actively interested in the enterprise.

Cartersville, Ga.—Manganese Mines.—J. Capies Mallonee, Box 305, Savannah, Ga., contemplates developing manganese properties near Cartersville. Correspondence with parties who understand grinding and marketing manganese ore is invited.

Clarkesville, Ga.—Street Improvements.—City has voted affirmatively the issuance of \$5000 of bonds to macadamize Main street. Address The Mayor.

Columbus, Ga.—Cotton Mill.—Swift Spinning Mills has let contract to Geo. B. Hinman of Atlanta for erection of three-story 134x178-foot cotton-mill building; plans and specifications by C. R. Makepeace & Co., Providence, R. I. Swift Company will install 10,000 spindles, as stated recently. Clifford J. Swift is general manager.

Columbus, Ga.—Desk and Furniture Factory.—Columbus School Desk Co., which is arranging for the erection of new plant to manufacture school desks, church furniture, opera seats, etc., has had preliminary plans prepared calling for a main mill building, 60x130 feet; foundry building, 50x100 feet; finishing-room, 40x60 feet; office building, 20x40 feet. Either steel or concrete will be used in the construction. Electrical equipment will be installed—individual direct motors. J. O. McBride is president and J. B. Banks secretary-treasurer. (Previously referred to.)

Decatur, Ga.—Water-works.—Bids will be opened March 5 for constructing the proposed water-works. H. S. Jaudon, Thomasville, Ga., is the engineer in charge.

Douglasville, Ga.—Cotton Mill.—Hal L. Johnston of Palmetto, Ga.; A. W. McLarty, J. T. Duncan and L. C. Upshaw of Douglasville have purchased the New Century Cotton Mill and will organize a new company with capital stock of \$200,000 for manufacturing cotton duck. They will install about 7000 spindles and accompanying looms to begin with. The main building is two stories high, of standard mill construction, with 90,000 square feet of floor space, besides engine and boiler rooms.

Dublin, Ga.—Cotton Mill.—Dublin Cotton Mills is reported as having decided to increase capital stock from \$125,000 to \$350,000

In order to enlarge mill; present equipment 900 spindles and 260 looms.

Elberton, Ga.—Electric-light Plant.—City is arranging for improvements to electric-light plant, including an additional 125-horse-power engine and alternator. G. W. Hubbard is superintendent.

Eutaw (not a postoffice), Ga.—Timber Land.—It is reported that G. M. Martin, J. Q. Burnett, W. O. Kearley and William Berry, all of Crossville, Tenn., have purchased at \$15,000 a tract of long-leaf yellow pine timber near Eutaw, estimated to contain between 15,000,000 and 20,000,000 feet.

Gainesville, Ga.—Brush Factory.—It is reported that S. A. Camp & Co. will erect plant for the manufacture of scrubbing brushes. S. A. Camp, A. P. Large and J. L. Ingram are members of the firm.

Girard, Ga.—Cottonseed-oil Mill.—A. D. Hamby has purchased controlling interest in the Girard Cotton Oil Mill, will install additional machinery and make other improvements.

Macon, Ga.—Gin and Machine Works.—Chartered: Massey Gin & Machine Works, with \$25,000 capital stock, by O. W. Massey and Walter Massey.

Milledgeville, Ga.—Street Paving.—City will vote March 12 on the issuance of \$40,000 of bonds for street paving. Chas. L. Moore is city clerk.

Rockmart, Ga.—Brick Works.—Mansfield Brick Co. has been incorporated with \$45,000 authorized capital stock by J. A. Scott, Chas. K. Weller, J. E. Brown, Robert H. Brown, I. F. Mundy, all of Atlanta, Ga.

Sylvester, Ga.—Telephone and Telegraph System.—Chartered: Sylvester Telephone & Telegraph Co., with \$2500 capital stock, by W. C. Spurlock and others.

Valdosta, Ga.—Street Paving.—City will let contract March 1 for laying 5500 yards vitrified brick paving and 2000 yards cement sidewalks. J. J. Newman is city clerk.\*

#### KENTUCKY.

Corbin, Ky.—Water-power Electric Plant and Chemical Reduction Works.—The Cumberland Falls Water-Power Syndicate is the organization which proposed to effect the development of the Cumberland river falls, utilizing the power for operating a chemical reduction plant and transmitting the surplus to Lexington, Frankfort, Louisville and other cities. It is proposed to build a concrete dam 82 feet high, backing up the river about 26 miles, providing an effective head of 150 feet at the dam and developing 20,000 horse-power for transmission by electricity, the power plant complete being estimated to cost \$2,000,000. Engineering work already completed at the falls permits the construction of the dam to begin at once. Mr. Arthur Glesler, 29 Broadway, New York, is the syndicate's consulting engineer, and is understood to be completing plans and specifications. The syndicate's managers are Messrs. J. J. Wetmore, Alfred A. Thresher and S. L. Merchant. They propose to form a corporation with an authorized capitalization of \$10,000,000 to undertake and complete the power developments. Their offices are at 29 Broadway, New York city. (This enterprise lately mentioned.)

Irvine, Ky.—Cannery.—Estill County Cannery Co. is being organized with \$10,000 capital stock.\*

Leslie County, Ky.—Coal Mines.—W. R. Whitson, F. T. Meriwether of Asheville, N. C., and associates are interested in the development of 10,000 acres of coal land in Leslie, Letcher and Perry counties.

Lexington, Ky.—Brick and Tile Works.—Central Kentucky Brick & Tiling Co. has been incorporated with \$15,000 capital stock by F. H. Hulett, E. S. Kinkend, C. J. Bronston, F. H. Clarke, B. C. Hagerman and Matt Walton.

Louisville, Ky.—Mattress Factory.—Hoffman Sanitary Mattress Co. has been incorporated with \$15,000 capital stock by W. F. Gregory, Fred Hoffman, E. W. Oppenheimer and J. H. Sullivan.

Louisville, Ky.—Viaduct.—Board of Public Works will let contract March 1 for constructing Oak-street viaduct; cost \$100,000. Joseph P. Claybrook is City Engineer.\*

Louisville, Ky.—Engineers.—J. A. Holmboe has formed the Holmboe Company to act as consulting and contracting engineer for steel and reinforced concrete work, etc.\*

Nicholasville, Ky.—Barytes Mining and Milling.—L. A. Bell, A. H. Eames of Pittsburgh, Pa., and W. J. Wyman of Honaker, Va., representing the Pittsburgh (Pa.) Barytes Co., has purchased site on which to erect a \$50,000 plant to have a daily capacity of four tons. The company has also leased 75,000 acres of land in Jessamine and Garrard counties for development. Mr. Wyman will

be general manager and will superintend the work at the quarries.

Paducah, Ky.—Coffee-roasting Plant.—E. W. Bockman Coffee Co. has been organized with \$25,000 capital stock to take over the business of E. W. Bockman.

Rowlett, Ky.—Cannery.—Green River Cannery Co. has been organized with C. R. Bunnell president, William Stice vice-president, T. E. Shinnick secretary-treasurer, all of Rowlett, and F. D. Case of Rossville, Ill., general manager.

Shelbyville, Ky.—Sewerage System.—C. E. Collins, Philadelphia, Pa., is reported as preparing plans for sewerage system reported December 13 to be constructed.

Stearns, Ky.—Mineral-wool Factory.—Dannehill (Ky.) capitalists are reported as organizing the Kentucky Fiber Co. for the manufacture of mineral wool, largely used for insulating purposes, from rock recently discovered near Stearns.

Wolfe County, Ky.—Timber Land.—J. W. and M. C. Clay of Mt. Sterling, Ky., it is reported, have purchased at \$10,000 a tract of virgin timber in Wolfe county for development.

#### LOUISIANA.

Alexandria, La.—Hardwood Lumber.—Incorporated: Red River Hardwood Lumber Co., Ltd., with \$50,000 capital stock. John Pennington of Georgetown, La., is president and A. H. Frank secretary-treasurer.

Alexandria, La.—Cold-storage and Ice Plant.—Consumers' Storage & Ice Co. has been organized to establish cold-storage and ice plant; brick building 160x68 feet will be erected and equipped for daily capacity of 50 tons of ice and 30 tons cold-storage; about \$60,000 will be invested; ice machinery has been purchased. George A. Morris, Jr., is proprietor. Mr. Morris can be addressed care of Rapides Hotel. (Referred to January 31.)\*

Broussard, La.—Cottonseed-oil Mill.—Broussard Cotton Oil Co., Ltd., has been incorporated with \$40,000 capital stock for the establishment of 60-ton cottonseed-oil mill. Dr. G. R. DeLaurel is president, P. A. Duplex vice-president, P. Bileaud secretary and H. Bileaud treasurer.

Collinston, La.—Drainage.—City will issue bonds for draining about 20,000 acres of cotton lands in Louisiana. It is expected that several drainage canals will be constructed in the district during the present year. Address The Mayor.

Crowley, La.—Water-works.—Contract will be let April 2 for constructing an extension to the water-works system, consisting of approximately 20,000 linear feet of six-inch mains. Shelly Taylor is Mayor.\*

Hammond, La.—Sewerage System.—City is to construct sewerage system. James B. Adams is City Clerk.

Longville (not a postoffice), La.—Lumber Plant.—Longville Long Leaf Lumber Co., recently incorporated, is completing arrangements for the establishment of plant to have a daily capacity of 200,000 feet, consisting of general yard stock, railroad and export timbers. Sawmill, planing mill, dry-kilns, tenement-houses and all other buildings necessary to a modern equipped plant will be erected. Size of buildings not decided. B. H. Smith is local manager; address for the present at Bon Ami, La.

Milhaven, La.—Cotton Gin.—C. Sholars will rebuild cotton gin recently burned. A two-story building 30x60 feet will be erected and equipped for a daily capacity of 25 bales.

Morganza, La.—Sawmill.—Beauvais Lumber Co., Ltd., reported incorporated last week, will operate sawmill with a daily capacity of 15,000 feet. F. A. Beauvais is president and V. O. Beauvais secretary-treasurer.\*

New Orleans, La.—Development Company. Southern Development Co. has been incorporated with \$100,000 capital stock. J. Creighton Mathews is president, James M. Sims vice-president and George T. Bouslog secretary-treasurer.

New Orleans, La.—Syrup Mill.—Penick & Ford, Shreveport, La., it is reported, have purchased site on which to establish plant to manufacture syrup from cane and refining and handling products of molasses.

New Orleans, La.—Brass Beds, Metal Fixtures, etc.—A company is reported as being organized by J. Creighton Mathews, 338 Morgan street, and others to manufacture brass beds, metal fixtures, etc.; capital stock \$50,000.

New Orleans, La.—Laundry.—Star Palace Laundry Co. has been incorporated with R. W. Cotton, president; S. M. Goss, vice-president and manager, and B. C. McClellan, secretary-treasurer.

New Orleans, La.—Naval Stores.—Dantzler

Naval Stores Co. has been incorporated with \$50,000 capital stock. W. B. Gillican is president, L. N. Dantzler, Jr., vice-president and J. Lewis Dantzler secretary-treasurer.

Shreveport, La.—Lumber Company.—McCullough-Ulmer Lumber Co. has been chartered with \$50,000 capital stock. D. F. McCullough is president.

Shreveport, La.—Furniture Factory.—Queen City Furniture Manufacturing Co. will increase capital stock from \$75,000 to \$200,000 for the enlargement of plant. It is proposed to erect lumber sheds, install cutting machines, dry-kilns, equipment for finishing purposes, additional engine, etc. Machinery has been purchased.

#### MARYLAND.

Baltimore, Md.—Turpentine Plant.—The Southern Turpentine Co., 82 Wall street, New York, has purchased lot at Highlandtown, and will erect turpentine plant to cost about \$50,000. Plans will be distributed about March 1 for estimates on construction through E. Macht, Equitable Building. A distributing warehouse at 332 and 334 North street has also been leased. The Baltimore office is at 62 Hanover Building, 110 West Fayette street.

Baltimore, Md.—Paving.—The Board of Awards, City Hall, has awarded contract to Patrick F. Reddington, 225 St. Paul street, for paving a portion of Erdman avenue with macadam at his bid of \$11,273. Work will be done under supervision of Commissioners for Opening Streets, Hoen Building, Lexington and Holliday streets.

Baltimore, Md.—Oils and Chemicals.—The Harlem Oil & Chemical Co., 411 North Front street, has been incorporated with capital stock of \$100,000 by Elmer M. Whiteford, Frank H. Moltz, Thomas H. Musgrave, Nelson W. Whiteford and John L. G. Lee.

Baltimore, Md.—Cooking-utensil Factory.—The Mang-Wahlmann Company, 105 Hanover street, has been incorporated to manufacture cooking utensils and other sheet-metal goods by August Maag, George H. Wahlmann, Louis Rosenfeld, James M. Decker and Mary Maag.

Baltimore, Md.—Sewerage System.—The Board of Awards, City Hall, has approved specifications for the construction of portions of the main outfall sewer and several sections of the high and low-level interceptor sewers. These sewers will all be constructed of concrete. Work will be done under supervision of Sewerage Commission, Calvin W. Hendrick, chief engineer, 904 American Building, Baltimore and South streets. Further details will soon be announced.

Baltimore, Md.—Machine Shop.—The Judge Machine Co. has been incorporated with capital stock of \$25,000 by Emanuel H. Miller, Wolfe and Thames streets; John S. Lusk, Milton avenue and Lanvale streets, and Max Braffman.

Baltimore, Md.—Cigar Factory.—The A. M. Pacholder Company, 659 West Saratoga street, has been incorporated with capital stock of \$25,000 to manufacture cigars by George B. Lewis, S. F. Coursen and Ralph C. Lupton.

Baltimore, Md.—Medicine Factory.—The Susquehanna Medical Co. has been incorporated with capital stock of \$5000 to manufacture chemicals and medicinal preparations by Louis E. Galloway, 736 North Monroe street; P. Victor Galloway, Central Savings Bank Building; Daniel B. Chambers, Edgar King and Lewis M. Elphinstone.

Baltimore, Md.—Steel Car Works.—The South Baltimore Steel Car & Foundry Co., Continental Building, will immediately rebuild its axle and truck shop which was destroyed by fire at its plant at Curtis Bay. New machinery will have to be installed.

Patapsco, Md.—Hydro-electric Plant.—Patapsco Electric & Manufacturing Co. has completed its 30x200-foot dam, developing 1500 horse-power, and will install two 500-horse-power units to begin with. Amberson Hydraulic Construction Co. of Boston, Mass., was the engineer and contractor and adopted a plan of placing the power-house in the interior of the dam, underneath the roll-way. Thos. Van Loan is president of the Patapsco company; mail address, Station D, Baltimore, Md.

#### MISSISSIPPI.

Collins, Miss.—Ice and Cold-storage Plant. City Ice & Cold Storage Co. has been incorporated with \$10,000 capital stock by D. C. McRaney, C. L. Blumfeld and others.

Crenshaw, Miss.—Drainage.—Plans are being considered for the construction of a canal to control the floods of the Coldwater river, draining about 30,000 acres of lands. Address The Mayor.

Grange, Miss.—Lumber Company.—Chartered: Grange Lumber Co., with \$25,000 capital stock, by J. W. Rush, W. Hemeter of Silver Creek, Miss., and others.

Hattiesburg, Miss.—Public Improvements.—City will issue \$10,000 bridge bonds, \$60,000 sewer bonds, \$25,000 of waterworks bonds and \$35,000 for street paving and deficit. Address The Mayor.

Hattiesburg, Miss.—Sawmill and Ice Plant. Chartered: Fairley Lumber & Manufacturing Co., with \$20,000 capital stock, by H. S. Hagerty, B. D. Moore and Daniel Fairley.

Hattiesburg, Miss.—Power Plant.—Announcements state that contract will soon be awarded for building and equipping proposed power plant for the Hattiesburg Traction Co. H. A. Camp is president.

Jackson, Miss.—Electric-light Plant.—J. R. Dobyns, superintendent Deaf and Dumb Institute, states there is no truth in the report mentioned January 14 that an electric-light plant will be installed.

Meridian, Miss.—Hardware.—Bennett Bros. Hardware Co. has been incorporated with \$10,000 capital stock by D. E. Bennett, T. G. Bennett and James Bennett.

Tibbee, Miss.—Supply Company.—Chartered: Planters' Supply Co., with \$10,000 capital stock, by J. W. Bell and S. W. Kidd.

#### MISSOURI.

Bevier, Mo.—Railroad Repair Shops, etc.—Missouri & Louisiana Railroad Co. will erect four-stall roundhouse and machine shop 25x50 feet, replacing buildings recently burned; John A. Sargent, Kansas City, Mo., architect and engineer in charge. Charles S. Keith is vice-president and general manager; offices, Keith & Perry Building, Kansas City, Mo.

Carthage, Mo.—Stone Quarry.—Reported that the Carthage Quarry Co. is making extensive improvements to quarry and plant doubling the present capacity. It is stated that a steel addition is being built to present plant to accommodate five gangs, four new steel gangs with necessary pumps and equipment, new power plant, new equipment in cutting shed, new steel traveler 250 feet long with a 45-foot span. The company, it is also stated, is arranging for opening additional quarry on site recently purchased.

Cape Girardeau, Mo.—Shoe Factory.—C. A. Moreno, St. Louis, Mo., is engineer in charge and T. C. Link architect for building reported recently to be erected by the Roberts, Johnson & Rand Shoe Co. of St. Louis, Mo., and equipped for the manufacture of medium-price welt and McKay shoes; building will be of brick and contain 70,000 square feet of floor space.

Creve Coeur, Mo.—Lumber Company.—Incorporated: John Hezel & Sons Lumber Co. has been incorporated with \$5000 capital stock by John Hezel, Charles Hezel, Mamie Stock and others.

Independence, Mo.—Planing Mill, etc.—Incorporated: Independence Planing Mill & Supply Co., with \$30,000 capital stock, by A. E. Elliott, G. C. Stewart, E. E. Harter and Carey May Carroll, to continue an established business.

Joplin, Mo.—Mining.—Ac-Irema Mining Co. has been incorporated with \$50,000 capital stock by J. A. Strong, W. N. Sevey, T. P. Burns and others.

Kansas City, Mo.—Lumber Company.—Logville Long Leaf Lumber Co. has been incorporated with \$600,000 capital stock by R. A. Long, C. B. Sweet, B. H. Smith and others.

Kansas City, Mo.—Bridge Construction.—Park Commissioners will let contract February 25 for constructing reinforced concrete continuous girder bridge across Brush creek at 47th street and Lydia avenue. Frank P. Gossard is secretary.\*

Kansas City, Mo.—Electric-light, Heat and Power Plant.—William F. Lyons and associates have applied for franchise to establish light, heat and power plant.

Kansas City, Mo.—Road Improvements.—Jackson County Court has arranged for building a north and south road in the eastern portion of the county, connecting the towns of Leavenworth, Oak Grove and Lone Jack, and has awarded contract to Colyer Brothers to grade a portion of the road running from Oak Grove to Lone Jack, a distance of six miles, and to Davidson Brothers to grade a portion of the road running north from Oak Grove to Leavenworth, a distance of five and one-half miles.

Novinger, Mo.—Printery.—Incorporated: Novinger Printing Co., with \$2000 capital stock, by J. J. Wells, J. M. Wood and M. T. Rombauer.

Poplar Bluff, Mo.—Milling.—David P. Bacon, William B. Hays and William H. Willey have incorporated the Butler County Milling Co. with \$40,000 capital stock.

St. Louis, Mo.—Compressor and Vacuum. Chartered: Sobinski Compressor and Vacuum Co., with \$12,000 capital stock, by Otto Sobinski, H. M. Hodges, H. L. Christie and others.

St. Louis, Mo.—Construction.—Denison Construction Co. has been incorporated with \$80,000 capital stock by Rudolph Schellhamer, William L. Bohlenkamp and others.

St. Louis, Mo.—Machinery.—Manley-Landreth Machine Co. has been incorporated with \$50,000 capital stock by L. E. Manley, Edith Manley and W. H. Landreth.

St. Louis, Mo.—Skirt and Underwear Factory.—Aresco Manufacturing Co., recently incorporated, will manufacture skirts, petticoats and muslin underwear; about 125 machines will be in operation; capital stock, \$5000. Harry C. Wheeler, Elias Michael, Frederick B. Eisman, Ernest W. Stix and Arthur H. Rice are the directors. J. N. Alberstein is manager. Address 1438 O'Fallon street.

St. Joseph, Mo.—Construction Company.—Skilbred Construction Co. has been incorporated with \$2000 capital stock by Daniel Donaghue, G. O. Skilbred and C. I. Skilbred.

St. Louis, Mo.—Lumber Company.—J. B. Perkins Lumber Co. has been incorporated with \$25,000 capital stock by Wm. Moller, Robert Kamm, Wm. Kingsbury and others.

St. Louis, Mo.—Metal Pipes, Fittings, etc. Chartered: J. R. Brockman Manufacturing Co., with \$25,000 capital stock, by James R. Brockman, Lloyd Holt and Clyde Mettler.

Winona, Mo.—Telephone System.—Current River Telephone Co. has been chartered with \$10,000 capital stock by J. V. Chilton, John Church, James Holland and others.

St. Louis, Mo.—Bakery.—Adolph Boettler, Fred S. Freund, John B. Heydt, F. H. Hapengarten, John H. Hoerr and associates have incorporated the American Bakery Co. with \$3,000,000 capital stock.

St. Louis, Mo.—Furniture Factory.—Landau Cabinet Co. has been incorporated with \$30,000 capital stock by Alexander Landau, Eva Landau, Allen B. Clippard and others.

St. Louis, Mo.—Land and Lumber Company.—Vollmar Land & Orchard Co. has been incorporated with \$6000 capital stock by Alex. A. Schlappirzzi, Frank T. Moorman, Wm. C. Neubauer, Charles A. Hoffman and others.

St. Louis, Mo.—Vinegar and Pickle Factory.—Incorporated: A. Braun Manufacturing Co., with \$10,000 capital stock. Adolf Braun is president and Adolf Braun, Jr., secretary-treasurer; office, 811 South 6th street.

St. Louis, Mo.—Iron and Hardware.—Chas. Osthoff, Henry Spehs, Barney H. Schrautmeier, Wm. Rabacka and others have incorporated the St. Louis Iron Store Co. with \$50,000 capital stock.

St. Louis, Mo.—Brewers' Supplies.—Busch-Freund Brewers' Supply Co. has been incorporated with \$64,000 capital stock by Otto Busch, Morris Freund, Jacob K. Baer and Leopold Freund.

St. Louis, Mo.—Air Compressors.—Sobinski Air Compressor & Vacuum Co. has been incorporated with \$12,000 capital stock by Chas. O. Sobinski, Otto Sobinski, Jesse Hodges, P. Taylor Bryan and Harvey L. Christie.

St. Louis, Mo.—Engine and Boiler House, etc.—Plans are reported as being prepared for engine and boiler house to be constructed at a cost of \$100,000 at the water-works; also for purification building and engine-house for the city; cost \$20,000. James A. Smith is City Engineer.

St. Louis, Mo.—Iron Works.—Century Iron Works has been chartered with \$16,300 capital stock by Gilbert Anderson, Louis D. Goodman, Robert W. Hall and others.

Webb City, Mo.—Mining.—No. 2 Mining Co. has been incorporated with \$20,000 capital stock by J. M. Smith, M. R. Smith, L. C. Whitaker and others.

Webb City, Mo.—Chartered: Standard Tanning Reduction Co., with \$16,000 capital stock, by Julius Guffy, W. E. Ford, Jacob Schelk and others.

#### NORTH CAROLINA.

Aulander, N. C.—Brick Works.—Dunning Brick Co., reported incorporated last week, has about completed erection of necessary buildings and installation of machinery at a cost of \$7500; capacity, 3,000,000 bricks per season. This company contains the plant of J. A. Dunning and is trebling the capacity. It will also build a brick plant at Cofield. B. G. Williams is president, J. A. Dunning manager and W. S. Dunning secretary-treasurer.

Ashboro, N. C.—Handles, Spokes, etc.—Ashboro Wheelbarrow & Manufacturing Co. has purchased and is installing machinery for the manufacture of handles, spokes, whiffletrees, etc.

Aulander, N. C.—Brick Works.—Dunning Brick Co. has been incorporated with \$30,000 authorized capital stock by J. A. Dunning, W. S. Dunning and B. G. Williams.

Charlotte, N. C.—Automobile and Repair Shop.—A. Burwell, J. H. Phelps and R. S. Hutchinson have incorporated the Charlotte Motor Car Co., authorized capital stock \$10,000, to deal in automobiles, conduct repair shop, etc.

Charlotte, N. C.—Manufacturing Plant.—It is reported that A. Hirsch of Chicago, Ill., has purchased eight acres of land at \$16,000 and will probably erect a large manufacturing plant.

Clarkton, N. C.—Land and Lumber Company.—Clarkton Land & Lumber Co. has been incorporated with \$25,000 authorized capital stock by Oscar L. Clark, M. B. McAuley, C. L. Clark and A. E. McAuley.

Concord, N. C.—Overall Factory.—Announcements state that P. A. Correll has ordered machinery to manufacture overalls; proposed daily capacity, 25 dozen pairs.

Concord, N. C.—Woodworking Plant.—Reported that Messrs. Davis and Niblock of Salisbury, N. C., have begun construction work on proposed plant at Concord to manufacture rough and dressed lumber, doors, sash, blinds, etc.

Concord, N. C.—Cotton Mill.—Odell Manufacturing Co. is reported as to displace its looms and replace with carding and spinning machinery.

Cornelius, N. C.—Cotton Mill.—Gem Yarn Mills Co., recently reported incorporated with \$75,000 capital stock, is installing 3000 spindles and accompanying machinery. J. B. Cornelius is president.

Cornelius, N. C.—Cotton-finishing Plant.—Cornelius Cotton Mills is said to be preparing to install the finishing plant recently reported as decided on by the company's stockholders.

Cornelius, N. C.—Cottonseed-oil Mill.—It is proposed to establish a cottonseed-oil mill, and J. L. Smith is interested.

Durham, N. C.—Development Company.—Nimrod Developing Co. has been chartered with \$4500 authorized capital stock by J. C. Anglis, S. H. Boyd and F. L. Fuller.

Fayetteville, N. C.—Cotton Mill.—Tolar, Hart & Holt Mills reported as to add 1368 spindles.

Granite Falls, N. C.—Cotton-cordage Mill.—Granite Cordage Co. has been organized with capital stock of \$25,000 to manufacture cotton cordage. It will operate 50 braiders to begin with and soon add 50 more. Machinery has been ordered. O. A. Robbins of Charlotte, N. C., is president; A. A. Shuford of Hickory, N. C., treasurer, and J. M. Allred, manager.

Hallison, N. C.—Bridge.—It is reported that the Randolph & Cumberland Railroad will construct a steel bridge 300 feet long at Deep river. W. C. Cram, Jr., is chief engineer.

Indian Trail, N. C.—Gold Mining.—Cleveland (Ohio) parties are arranging for the development of gold properties near Indian Trail known as the Brown Hill mining tract. Paul S. Johnson, 524 Rockefeller Building, Cleveland, Ohio, can probably give information.

Lenoir, N. C.—Water-works and Street Improvements.—City is reported to vote \$80,000 of bonds for water-works and street improvements. Address The Mayor.

Mt. Olive, N. C.—Sash and Blind Factory.—The establishment of sash and blind factory is under consideration, and L. C. McCullen is interested.

Mount Olive, N. C.—Railroad Ties.—F. M. Morrill, E. H. Telle and others have incorporated the Railroad Tie Supply Co. with \$25,000 capital stock.

Plymouth, N. C.—Lumber Company.—Ayers & Martin Lumber Co. has been incorporated with \$5000 authorized capital stock by Edgar W. Ayres and James C. Martin.

Shelby, N. C.—Drug Company.—Cleveland Drug Co. has been incorporated with \$10,000 authorized capital stock by R. E. Carpenter, W. J. Roberts and F. L. Carpenter.

Taylorville, N. C.—Telephone System.—City is reported as having granted franchise to the Peoples' Telephone Co., now being organized with about \$25,000 capital stock, for the construction of a telephone system from Taylorville to Statesville, N. C. P. L. Stock is Mayor.

Weldon, N. C.—Knitting Mill.—Balfron Knitting Co. recently reported incorporated, is establishing an underwear knitting mill. P. H. Brown is manager.

West End, N. C.—Sawmill Machinery Works.—J. B. Vuncanon, manufacturer and dealer in dressed lumber, moldings, cross-arms, etc., will install machinery for the

manufacture of a special steel carriage portable sawmill and will purchase equipment.\*

Wilmington, N. C.—Packing Plant.—Reports state that J. Ogden Armour of the Armour Packing Co. of Chicago, Ill., has purchased site on Water street from the Willard Bag & Manufacturing Co. at \$7500. It is understood that the Armour Company will erect a two-story brick building costing between \$20,000 and \$30,000 to be equipped as packing plant.

Wilmington, N. C.—Terminal Company.—North Carolina Terminal Co. has been incorporated with an authorized capital stock of \$250,000 by John D. Bellamy, Wm. M. Bellamy and John S. Armstrong.

Winston-Salem, N. C.—Gas and Electric-light Plants.—Beverly N. Sullivan, S. M. Smith and D. D. Harmon have incorporated the Winston-Salem Light & Fuel Co. with an authorized capital stock of \$150,000, to own and operate gas and electric-light plants.

#### SOUTH CAROLINA.

Clio, S. C.—Novelty Works.—Clio Novelty Manufacturing Co. will rebuild plant reported burned: size and character of building not detailed.

Hartsville, S. C.—Woodworking Plant.—Hartsville Wood Manufacturing Co. contemplates increasing output and to manufacture screen doors and windows.\*

Pickens, S. C.—Acetylene-gas Plant.—A stock company has been organized to establish an acetylene-gas plant. R. E. Goodwin can give information.

Pickens, S. C.—Planing Mill.—The establishment of planing mill is being considered, and R. E. Goodwin is interested.\*

Sumter, S. C.—Saw and Planing Mill.—George Bounds, reported January 10 as having contract to erect saw and planing-mill building for the Linson Lumber Co., has transferred the contract to C. M. Bounds, Box 395.

Woodruff, S. C.—Water-power Electric Plant.—A. B. Grace will develop the Patton Shoals water-power and transmit electricity for lighting and power purposes.

Woodruff, S. C.—Cotton Mill.—W. S. Gray & Sons are reported as to build a cotton mill for the manufacture of yarns, installing 10,000 spindles and using electricity for motive power. It is stated that J. E. Shirline of Greenville, S. C., is the mill architect in charge.

#### TENNESSEE.

Athens, Tenn.—Hosiery Mill.—Athens Hosiery Mill is rapidly rebuilding its structures, previously referred to as burned. It is erecting two-story addition 42x42 feet for dryhouse, 20x42 foot engine-room, 21x42 boiler-room one story high, oxidizing-room 30x35 feet, one story high; also remodeling sprinkler system, etc.; has purchased dyeing machinery to replace burned apparatus, etc. (Referred to in November).\*

Bluff City, Tenn.—Water-power Electric Plant.—Holston Mining & Manufacturing Co. and the Holston Water, Electric & Power Co. have been chartered by M. L. Power, J. G. Haun, E. S. Fraser, E. P. Kinsel, all of Bristol, Tenn., to develop the water-power on the Holston river at Bluff City and generate electricity for lighting and power purposes.

Carthage, Tenn.—Bridge Construction.—W. T. Young Bridge Co., Nashville, Tenn., has contract at \$18,000 for construction of bridge across Caney Fork river at Ballard's ferry for Carthage & Granville Bridge Co.

Chattanooga, Tenn.—Logging Tools.—W. P. Smith of Rogersville, Tenn., and associates have organized company to establish plant either at Chattanooga or Knoxville, Tenn., to manufacture logging tools.\*

Chattanooga, Tenn.—Tunnel.—D. G. Seymour, resident engineer, is in charge of the construction of tunnel 1300 feet long through Cummings Gap for the Southern Railway, which is building a line from Chattanooga to Stevenson, Ala. (Referred to February 7.)

Columbia, Tenn.—Cottonseed-oil Mill.—Board of Trade is considering a proposition relative to the establishment of cottonseed-oil mill.

Jackson, Tenn.—Ice Plant.—Consumers' Ice Co. has increased capital stock from \$30,000 to \$50,000.

Jonesboro, Tenn.—Waterworks.—Reported that P. H. Norcross, Atlanta, Ga., has been engaged to prepare plans and specifications for water-works mentioned January 24 to be constructed. \*

Knoxville, Tenn.—Foundry.—Wm. J. Oliver Manufacturing Co. has completed addition to its foundry (previously arranged for) at a cost of \$15,000. Ballast cars will now be manufactured and the present capacity of plant will be doubled.

Knoxville, Tenn.—Steam Regulators, etc.—Fulton Manufacturing Co. is reported to enlarge plant, increasing its output of steam regulators. It is also stated that a brass and iron foundry will be added.

Knoxville, Tenn.—Construction Company.—William J. Oliver Manufacturing Co. will be reorganized with \$1,000,000 capital stock to take over the present plant, enlarging and improving same; Incorporators, William J. Oliver, J. C. Luttrell, E. G. Ontea, Joseph P. Gant and Alex. McMillan.

Knoxville, Tenn.—Dam Construction.—As soon as the new line of the Southern Railway along the Little Tennessee river is put in operation W. J. Oliver & Co., having contract to build dam for the Knoxville Power Co., previously referred to, will begin construction work. The dam will be 80 feet high and over 600 feet long. There will be a canal eight miles long with a tunnel 800 feet. Through a spur of the mountain at the mouth of the tunnel will be the powerhouse. There will be a fall of 250 feet, and about 40,000 horse-power will be obtained at the low stage of the river.

Knoxville, Tenn.—Mantel Factory.—Tennessee Mantel Manufacturing Co., Ltd., is completing improvements to plant at a cost of \$45,000, which include a four-story addition 50x180 feet; daily capacity, 75 to 100 cabinet mantels.

Knoxville, Tenn.—Railroad Construction.—R. B. Oliver Company has been chartered with \$10,000 capital stock by Robert B. Oliver, W. S. Roberts, J. C. Harris, W. E. Goetz and J. C. Kimball.

Memphis, Tenn.—Bakery.—Shelby Biscuit Co., recently organized with \$250,000 capital stock, has purchased the entire equipment of the Southern Biscuit Co. and will build two additional ovens, making it a six-oven plant. Later the plant will probably be increased to 12 ovens.

Mt. Pleasant, Tenn.—Building Company.—Chartered: Mt. Pleasant Building Co., with \$20,000 capital stock. D. W. Shofner is president and E. Dan Smith secretary.

Mt. Pleasant, Tenn.—Phosphate Mines.—Phosphate Supply Co. has been incorporated with \$15,000 capital stock by Percy S. Chandler, E. Dan Smith, George Prince, G. M. Blasdeol and Ernest Erwin.

Nashville, Tenn.—Pumping Station.—The building of an addition to pumping station is under consideration, and the Board of Public Works will recommend an appropriation of \$52,500 for employing an architect and constructing same.

Nashville, Tenn.—Manufacturing.—Incorporated: Rothschild-Lusky Manufacturing Co., with \$50,000 capital stock, by J. C. Lusky, Aaron Rothschild, Louis Lusky, A. O. Kleen and Louis Leftwich.

Newport, Tenn.—Cotton Mill.—C. F. Boyer will establish the Bellevue Cotton Mill to operate 5000 spindles on the production of cotton yarns. Machinery has been purchased and is being installed. About \$50,000 will be invested.

Ripley, Tenn.—Street Improvements.—A \$10,000 bond issue will be voted March 14 for graveling and improving the streets. Address Town Clerk.

Springfield, Tenn.—Road Improvements.—Robertson county will vote March 16 on the issuance of bonds for road improvements. Address County Clerk.

Sweetwater, Tenn.—Cannery.—Sweetwater Valley Cannery is the title of company reported last week as organized to establish cannery. D. D. Collins is president and C. M. Pickel secretary-treasurer.

Trenton, Tenn.—Public Improvements.—City will vote within 60 days on \$20,000 of bonds for constructing sewerage, \$12,000 for electric-light plant and \$20,000 for graveling streets. W. L. Wade is Mayor.

#### TEXAS.

Amarillo, Texas—Hardware.—Amarillo Hardware Co. has increased capital stock from \$10,000 to \$20,000.

Austin, Texas—Street Paving.—City will let contract March 1 for street paving. A. C. Goeth is chairman of building committee.\*

Bay City, Texas—Grain.—Bryan-Perry Grain Co. has been incorporated with \$10,000 capital stock by W. Joel Bryan, S. S. Perry, M. S. Perry and V. L. Letulle.

Beaumont, Texas—Hardwood Mill.—C. H. Cummings has purchased site on which to locate proposed hardwood mill.

Beaumont, Texas—Ice, Light and Refrigerating Plant.—Beaumont Ice, Light & Refrigerating Co. has increased capital stock from \$300,000 to \$600,000.

Bearfoot, Texas—Oil Wells.—Mexican Petroleum Co. has been incorporated with \$50,000 capital stock by Horace S. Gould of

New York, N. Y.; Samuel B. Howard of Mill Brook, N. Y., and Harry W. Davis of Wilmington, Del.

**Bedias, Texas—Hardware.**—Bedias Hardware Co. has been organized with \$10,000 capital stock. R. P. Brooks is president, Joe Griffith secretary.

**Bryan, Texas—Cottonseed-oil Mill and Fertilizer Factory.**—Farmers' Cotton Oil & Fertilizer Co. has been incorporated with \$50,000 capital stock to establish 75-ton cottonseed-oil mill and fertilizer factory. H. O. Boatwright is president, E. J. Fountain vice-president and W. S. Wilson, Jr., secretary.

**Burlington, Texas—Cottonseed-oil Mill.**—W. A. Barclay of Crenshaw, Texas, and associates will erect a 40-ton cottonseed-oil mill. Mr. Barclay may also establish round-bale cotton compress, removing same from Crenshaw.

**Celeste, Texas—Cotton Mill.**—Britton Bros. of Dallas, Texas, have purchased the Perrin Cotton Mills at \$50,000 and will overhaul the plant preparatory to operating it. Yarns and twines are manufactured.

**Dallas, Texas—Mattress Factory.**—It is reported that a \$30,000 mattress factory will be established and Tom B. Burnett will be manager.

**Dallas, Texas—Cotton-gin Machinery.**—Air Blast Gin Co. has been incorporated with \$200,000 capital stock to erect plant for the manufacture of air-blast gins; incorporators, Robert E. Lumpkin, J. T. Elliott, Edgar Lumpkin, Carleton Gage, Manning B. Shannon, Gilbert H. Irish, Lauch McLaurin and associates.

**Elgin, Texas—Pottery.**—Elgin Pottery Co. has been incorporated with \$15,000 capital stock by W. H. Rivers of Elgin, M. Butler and W. G. Sneed of Austin, Texas.

**El Paso, Texas—Sewerage System.**—City will issue \$50,000 of bonds for building storm sewers. Address The Mayor.

**El Paso, Texas—Publishing.**—Herald News Co. has increased capital stock from \$40,000 to \$80,000.

**Fort Worth, Texas—Iron and Steel Works.**—Reported that the Fort Worth Iron & Steel Co. will rebuild plant reported burned.

**Fort Worth, Texas—Bottling Works.**—Incorporated: McDaniel Bottling Co., with \$15,000 capital stock, by J. S. McDaniel, S. M. McDaniel and B. H. McDonald.

**Fort Worth, Texas—Electric-light Plant.**—V. S. Wardlaw, manager North Fort Worth Cold Storage Co., has applied for electric-light franchise.

**Giddings, Texas—Cotton Mill.**—Business Men's League is corresponding with Dallas parties relative to establishment of a cotton mill.

**Greenville, Texas—Cotton Mill.**—J. F. Nichols, Mayor, is corresponding with capitalists who offer to organize a \$125,000 cotton-mill company.

**Houston, Texas—Lumber.**—J. C. Hill, F. L. Berry and John B. Peyton have incorporated the Donle Lumber Co. with \$5000 capital stock.

**Houston, Texas—Can Factory.**—Houston Can Manufacturing Co. has been organized with \$25,000 capital stock to continue an established business. It proposes to erect a larger plant on site recently purchased and, in addition, manufacture airtight heating stoves, galvanized-tin washtubs and buckets, etc. J. M. White is president and Thomas B. Goodpasture vice-president.

**Houston, Texas—Mattress and Spring-bed Factory.**—Reported that the Lottman-Myer Manufacturing Co. will erect a modern four-story-and-basement building adjoining factory for the storage of furniture; brick: 60x100 feet, with an L extension 40x50 feet; additional floor space to be provided, about 40,000 square feet.

**Houston, Texas—Cottonseed-oil Mill.**—Independent Cotton Oil Co. has been chartered with \$100,000 capital stock to build a four-press 90-ton cottonseed-oil mill, for which contract has been let. A. B. Slack of Dallas, Texas, is president, W. Weatherford of Houston vice-president and general manager, and L. T. Hubbell of Houston secretary treasurer.

**Houston, Texas—Lumber Company.**—Attoyae River Lumber Co. has increased capital stock from \$75,000 to \$100,000.

**Houston, Texas—Lumber Company.**—Carter Lumber Co. has increased capital stock from \$50,000 to \$100,000.

**Italy, Texas—Cotton Mills.**—E. H. Murphy, Mayor, is corresponding with a financial company which submits a proposition for the organization of a cotton-mill company with capital stock of \$125,000.

**Jacksboro, Texas—Cotton Mill.**—Board of Trade is promoting the organization of a company to build a cotton mill.

**La Porte, Texas—Rice Cultivation.**—A company has been organized with \$75,000 capital stock and A. R. Miller, president; J. M. Heizer, vice-president; George F. Horton, secretary-treasurer, and Theo. V. Buckholz, manager, to develop 1500 acres of rice land. It proposes to install pumps with a capacity of 15,000 gallons per minute and dig a canal 100 feet wide.

**Lufkin, Texas—Lumber Company.**—Angelina County Lumber Co. has increased capital stock from \$16,000 to \$150,000.

**Lyons, Texas—Cottonseed-oil Mill and Cotton Gin.**—Reports state that Ed Mattejovsky, Sr., O. F. Lyon, Marvin Murray, Joe Kreck and others have organized company with \$25,000 capital stock to establish cotton seed-oil mill and cotton gin.

**Mt. Vernon, Texas—Brick Works.**—Paul J. Robertson is interested in plans to establish brick works; machinery not purchased.

**Neches, Texas—Sawmill.**—Reported that H. Baty and Ed Todd have purchased the timber rights on 1000 acres of land for development and will erect sawmill.

**New Birmingham, Texas—Cotton Gin.**—John Woolridge, T. J. Sheppard of Frost, Texas; S. D. McClure, E. A. Maloney of Foreston, Texas, and others have incorporated the Woolridge Gin Co. with \$40,000 capital stock.

**Orange, Texas—Road Improvements.**—Orange county has voted affirmatively the issuance of \$25,000 of bonds for road improvements. Address County Commissioners.

**Plainview, Texas—Steam Laundry.**—Shallow Water Steam Laundry Co. reported incorporated February 14 to operate steam laundry, will erect a frame building 24x76 feet. About \$5000 will be invested. H. E. Summers is manager, P. O. Box 36.\*

**San Angelo, Texas—Coal Mines.**—West Texas Coal Mining & Development Co. has been incorporated with \$150,000 capital stock by J. W. Powell, L. H. Hoffman, G. H. Garland, A. J. Baker and associates.

**San Antonio, Texas—Lignite Briquette.**—Incorporated: American Lignite Briquette Co., with \$250,000 capital stock, by Otto Koehler, J. J. Olsen, J. J. Stevens, Albertine C. Olsen and Homer Eads.

**San Antonio, Texas—Manufacturing.**—E. S. King, A. F. Richter, George R. Stumberg, Sr., E. O. Richter and A. R. McCreary have incorporated the King-Richter Manufacturing Co. with \$30,000 capital stock.

**Sheffield, Texas—Telephone System.**—Garrett Bean and Ed Miller have organized company for the construction of telephone system.

**Van Alstyne, Texas—Cotton Gin.**—Farmers' Gin Co. has been incorporated with \$6000 capital stock by J. H. McKinney, Jesse H. Marr and others.

**Van Alstyne, Texas—Flour Mills.**—Incorporated: Van Alstyne Roller Mills, with \$12,000 capital stock, by Joe H. McKinney, Jesse H. Marr and J. H. McKinney.

#### VIRGINIA.

**Alexandria, Va.—Safety Appliances.**—Nowland Safety Appliance Co. has been incorporated with \$30,000 capital stock. F. Beattie is president and C. W. Nowland secretary-treasurer.

**Alexandria, Va.—Tobacco.**—Plantation Tobacco Co. has been incorporated with \$15,000 capital stock to manufacture and deal in tobacco. T. Cushman is president, C. H. Ridenour vice-president, E. M. Chapman secretary and O. T. Wright manager.

**Clifton Forge, Va.—Gas Plant.**—It is stated that F. W. King, representing New Jersey capitalists, has applied for franchise for furnishing artificial gas.

**Clifton Forge, Va.—Electric-light Plant.**—Town will let franchise March 4 for installation of electric-light plant. For information address J. A. Gleason, chairman Water and Light Committee.\*

**Franklin City, Va.—Electric-light Plant and Water-works.**—Reported that Arthur L. Osgood of Philadelphia, Pa., will establish plant for furnishing Franklin City and Greenbackville with light, water and power.

**Franklin City, Va.—Electric Light and Water Works.**—Arthur L. Osgood, The Bourse, Philadelphia, Pa., will establish plants for furnishing electric lights and water as reported recently; details not decided.

**Goshen, Va.—Iron Furnace.**—A. J. Moxham of Wilmington, Del., has organized the Goshen Iron Co. with a capital stock of \$250,000, leased and will operate the iron furnace of the Chapman Iron, Coal & Coke Co. C. E. Stafford is president, with offices at Goshen. (It was reported recently that Mr. Moxham had bought the property.)

**Ivor, Va.—Lumber Plant.**—Shaw Land &

Timber Co., reported February 7 as establishing sawmill, etc., will have plant completed and in operation shortly. The buildings consist of a two-story sawmill 50x162 feet, planing mill 58x60 feet, with dry-kilns, railroad, etc. Pine, gum, cypress lumber and shingles, oak, ash and poplar will be manufactured; daily capacity, 60,000 to 70,000 feet; about \$150,000 will be invested; all equipment has been purchased. L. W. Brown is general manager; main office, Berkley, Va.

**Lodore, Va.—Telephone System.**—Amelia & Powhatan Telephone Co. has been incorporated with an authorized capital stock of \$5000 to construct telephone line through Amelia, Powhatan, Chesterfield, Goochland and Henrico counties; estimated length 300 miles; O. C. Hooker, president; W. H. Graber, secretary-treasurer.

**Martinsville, Va.—Grist Mill.**—Rivers-Rucker Grocery Co. has secured building which will be equipped as steam grist mill.

**Newport News, Va.—Street Improvements.**—City will vote February 28 on the issuance of \$100,000 permanent street improvement bonds. Floyd A. Hudgins is City Clerk.

**Norfolk, Va.—Sewerage.**—City has decided to take over contract for and continue laying sewers on Redgate avenue let some months ago to the Southern Contracting Company.

**Norfolk, Va.—Construction Company.**—John Construction Co. has been incorporated with \$10,000 authorized capital stock. A. John is president and J. Hunt Hannah secretary-treasurer.

**Norfolk, Va.—Publishing.**—Chartered: Fiveash Publishing Corporation, with authorized capital stock of \$5000, to conduct general publishing and book business; J. G. Fiveash, president; J. T. Parker, vice-president and treasurer, and J. W. Oast, Jr., secretary.

**Norfolk, Va.—Dry-dock.**—Colonna Dry-Dock Co. has completed the purchase of 320 feet water-front property on the eastern branch of the Elizabeth river on which to build proposed 3000-ton dry-dock, machine shops, etc. About \$185,000, it is stated, will be invested. This property adjoins about 300 feet of water-front property previously held.

**Portsmouth, Va.—Laundry.**—C. H. Herbert and F. O. Robertson are arranging for the installation of a laundry.

**Pulaski, Va.—Lumber Plant.**—Trolinger Lumber Co. has been incorporated with \$50,000 capital stock. J. H. Ratcliff is vice-president and general manager, and James T. Trolinger secretary and treasurer.

**Richmond, Va.—Box Factory.**—W. F. Bynum will establish temporary quarters until a suitable site can be secured for rebuilding box factory recently burned. Between \$15,000 and \$20,000 will be expended. Neither architect nor engineer engaged. Address Box 292.\*

**Richmond, Va.—Water-power Electrical Plant.**—Montague Manufacturing Co. (sash, doors, blinds, moldings, etc.), operating factory from power generated by a turbine wheel transmitted by the regular old-style shafting, is considering the advisability of further developing and increasing power and transmitting it by electricity to individual motors connected with each separate machine to be operated. This would probably necessitate the installation of a new and larger turbine wheel in addition to electrical equipment required. Plans and estimates as to probable cost of work are desired. J. L. Phipps is secretary-treasurer; office, 9th and Arch streets.\*

**Roanoke, Va.—Cold-storage Plant.**—It is announced that C. H. Hebler and F. J. Leonard, representing Swift & Co. of Chicago, Ill., have leased a room from the Randolph Market Co. for a period of five years, which will be equipped for cold-storage purposes at a cost of about \$3500.

**Roanoke, Va.—Power Plant.**—Roanoke Rail-way & Electric Co. has purchased site on which to erect a central power station at a cost of \$225,000. The building will be 100x150 feet, constructed entirely of reinforced concrete, including the roof, and will be equipped in the beginning with five boilers, each of 400 horse-power capacity, and three electric generating units, each composed of a steam turbine engine set up with and directly connected to an electric generator or dynamo. One of these machines will be what is known as a 1500-kilowatt generator, and each of the others will be a 500-kilowatt generator. This will mean a total constant production of electrical energy equivalent to 3300 horse-power. The station will be a steam plant, and the building will be so constructed to be added to when necessary. J. W. Hancock is general manager.

**Shenandoah, Va.—Bridge Construction.**—Shenandoah Bridge Co. is the title of company reported recently as being organized with H. H. Taylor president, I. Iseman secretary and G. M. Harnsberger treasurer, to

construct bridge connecting Page and Rockingham counties; capital stock \$4000.

**Staunton, Va.—Lead Mines.**—Chartered: Barium Lead Manufacturing Co., with A. H. Baylor, president, and H. E. Colner, secretary-treasurer; authorized capital stock, \$50,000.

**Williamsburg, Va.—Acetylene Plant.**—City will let contract February 25 for the installation of a complete acetylene plant. J. H. Seymour is chairman of light committee.\*

**Wylliesburg, Va.—Telephone Systems.**—Incorporated: Wylliesburg Telephone Co., with \$5000 capital stock, to construct telephone systems in Mecklenburg, Halifax and Charlotte counties; C. B. Robertson, president; W. H. Owens, vice-president; A. H. Zollinger, secretary-treasurer, and W. P. McGuire, general manager.

**Wytheville, Va.—Iron Works.**—Wytheville Iron Works, reported incorporated last week with \$50,000 capital stock, occupies buildings having 10,000 square feet of space; buildings and equipment costing \$15,000. H. C. Clayton is managing officer.

**Wytheville, Va.—Foundry and Machine Shop.**—A company is being organized with G. S. Brau, president; R. L. Peirce, treasurer, and H. C. Clayton, superintendent, to establish foundry and machine shop.

**Wytheville, Va.—Iron Works.**—Chartered: Wytheville Iron Works, with G. S. Bruce president, R. L. Peirce treasurer and E. A. Ewald secretary; authorized capital stock \$50,000.

#### WEST VIRGINIA.

**Bellington, W. Va.—Lumber Plant.**—American Woods Corporation has increased capital stock from \$10,000 to \$5,000,000. It has secured 50 acres of land near Bellington on which to erect planing and flooring mill, dry-kilns, storage yards, etc. About 30 acres will be utilized in building employees' homes. Charles E. Corkran of New York is president; Creed Collins of Pennsboro, W. Va., vice-president; Frederick Moore of Bellington, secretary, and Scott G. Boyce of Owls Head, N. Y., treasurer; main office, 1 Madison avenue, New York.

**Bluefield, W. Va.—Gas Plant.**—Raymond M. Hudson has applied for franchise to establish gas works.

**Clarksburg, W. Va.—Casket Factory.**—Clarksburg Casket Co. has been incorporated with \$25,000 capital stock. F. L. Wilson is president and J. H. Cuppett treasurer.\*

**Fairmont, W. Va.—Bottling Works.**—Chartered: Standard Bottling Works, with \$10,000 authorized capital stock, by W. T. Hartman, M. A. Ashcroft, O. F. Yough, John H. Hough and John F. Phillips.

**Grafton, W. Va.—Telephone System.**—It is reported that the Consolidated Telephone Co. will extend its telephone system, install additional equipment and make other improvements, expending about \$8000.

**Jacksonburg, W. Va.—Timber Development.**—Hood Lumber Co. of Bridgeport, Ohio, reported last week as having purchased 6000 acres of timber land in Wetzel county, will arrange for the development of the tract, installing a number of small sawmills estimated to cut from 10,000,000 to 12,000,000 feet annually. C. M. Hood will be president and general manager.

**Kingmont, W. Va.—Coal Mines.**—Fairmont & Lincoln Company, which recently purchased the Haskell-Gaskill coal properties, is completing arrangements for operating the mines. J. F. Cook is president, H. H. Lanahan vice-president and J. P. Hart secretary-treasurer.

**Piedmont, W. Va.—Lumber Company.**—Incorporated: McHenry Lumber Co., with \$25,000 capital stock, by John Mackie, W. R. Williams, M. A. Patrick, M. B. McHenry and F. M. Williams.

**Quinnimont, W. Va.—Coal Mines.**—Export Coal Co., reported incorporated February 7, is developing about 900 acres of coal land near Quinnimont; present output 100 tons daily, which will be increased to 400 or 500 tons. The plant at present represents an expenditure of \$75,000. No coke ovens will be erected. J. E. Beury is president, Justus Collins vice-president, John A. Thayer secretary and Carel Robinson general manager; main office, Charleston, W. Va.

**Weston, W. Va.—Tile Works.**—Monarch Tile Co., manufacturer of glass tile, contemplates making improvements to plant, increasing capacity from 2000 square feet of finished product daily to 20,000 feet.

**Wheeling, W. Va.—Candy Factory.**—Ohio Valley Candy Co. has increased capital stock from \$10,000 to \$25,000.

#### INDIAN TERRITORY.

**Berwyn, I. T.—Water-power Electric Plant.**—Washita Electric Power Co. has let contract to the General Contracting Co., Atlanta, Ga.,

to construct dam, canal, power-house and transmission lines to Ardmore, I. T., and Gainesville, Texas; contract awarded at \$407,000.

Hugo, I. T.—Creosoting Plant.—Reported the American Creosoting Co. will begin March 15 to erect its proposed creosoting plant, to cost about \$250,000.

Tulsa, I. T.—Oil Refinery.—Chas. T. Madison, vice-president Muskogee Refinery, Muskogee, I. T., is reported as promoting the organization of a company to establish refinery.

#### OKLAHOMA TERRITORY.

Clinton, O. T.—Cotton Mill.—M. L. Holcombe and Charles W. Goodwin, referred to last week as organizing cotton-mill company, propose having a capital stock of \$350,000, and anticipate an early organization of the company.

End, O. T.—Supply Company.—Chartered: Garfield County Supply Co., with \$150,000 capital stock, by S. H. Herrick, T. R. Perry, John A. Ludlow and George H. McKinnon.

Fargo, O. T.—Telephone System.—G. W. Bailey, W. R. Hill and C. A. Stromberg of Fargo and C. E. Castiller of Harmon, O. T., have incorporated the Fargo-Harmon Telephone Co., with \$1500 capital stock to build telephone system from Fort Supply to Grand.

Fairview, O. T.—Telephone System.—Incorporated: Fairview Southwestern Telephone Co., with \$1000 capital stock, by T. N. Case, J. W. Howard, J. J. Just and David Cornelison.

Kingfisher, O. T.—Hardware.—Chartered: Bunker Brothers, with \$25,000 capital stock, by John A. Bunker, Harry H. Bunker and George E. Bunker.

Lawton, O. T.—Packing Company.—Farmers' Packing Co. has been incorporated with \$200,000 capital stock by S. D. Green, O. C. Pokorney and Charley Hilton.

Lawton, O. T.—Brick and Stone Works.—J. C. Klein, W. F. Rice and C. S. Hough, all of Van Wert, O. T., have purchased the brick and stone works of the Lawton Concrete Manufacturing Co.

Lawton, O. T.—Gypsum Quarries.—W. H. Murphy is organizing company for the development of gypsum quarries.

Lawton, O. T.—Lime and Sand Mines.—E. R. Kirby is organizing company for the development of lime and sand deposits near Lawton.

Longdale, O. T.—Gypsum Quarries.—Reported that Eastern capitalists contemplate developing gypsum quarries on the property of J. D. Pratt.

Luther, O. T.—Sawmill.—O. W. Crossley will rebuild sawmill recently burned.

Mutual, O. T.—Telephone System.—Incorporated: Farmers & Merchants' Telephone Co., with \$1888 capital stock, by A. Huffman, J. Maulsby, Louis Morgan and associates.

Oklahoma City, O. T.—Supply and Construction Company.—Oklahoma Supply & Construction Co. has been incorporated with \$100,000 capital stock by L. G. Shedd, W. D. Newlin, Daniel Hall, C. M. Myers and others.

Oklahoma City, O. T.—Furniture.—Downey-Thomas-Young Furniture Co. has been incorporated with \$50,000 capital stock by W. B. Downey, J. E. Thomas, James A. Young and Lindsey Robinson.

Pawhuska, O. T.—Oil Wells.—Royal Oil Co. has been incorporated with \$40,000 capital stock by J. T. Baker, George E. Tucker of Pawhuska and W. I. Reman of Tulsa, I. T.

Pawnee, O. T.—Oil Wells.—Incorporated: Scipio Oil Co., with \$40,000 capital stock, by C. H. Stewart of Pawnee, C. C. Cole and J. R. Cole, Jr., of Tulsa, I. T.

Pond Creek, O. T.—Grain Elevator.—Reported that Frank Schoonover and associates contemplate erecting grain elevator at a cost of \$6000.

Shawnee, O. T.—Lumber Company.—McKee Lumber Co. has been incorporated with \$50,000 capital stock by John E. McKee, Arthur T. McKee and Harry D. McKee.

Stroud, O. T.—Water-works.—The \$10,000 bond issue reported February 7 as voted is for completing water-works system now under construction, adding tank and tower, etc. J. P. Freshour is Town Clerk.\*

Waurika, O. T.—Cottonseed-oil Mill.—B. V. Cummins has contracted with the Burge-Forbes Company of Sherman, Texas, for the erection of cottonseed-oil mill.

#### BURNED.

Anderson, S. C.—People's Oil Mill Co.'s seed and hull house.

Baltimore, Md.—Axle and truck shop of South Baltimore Steel Car & Foundry Co., Continental Building; loss about \$30,000.

Brookhaven, Miss.—McCormick & Thompson's variety works; loss \$5000. Heuck's Opera-house damaged \$1500.

Charleston, W. Va.—St. Albert Hotel.

Clio, S. C.—F. H. Ivey's novelty works; loss \$5000.

Cumberland Gap, Tenn.—Harrow Hall at the Lincoln Memorial University; loss about \$30,000. Gen. O. O. Howard is president.

Elberton, Ga.—Southern Railway Co.'s depot; loss \$30,000. C. H. Ackert, Washington, D. C., is general manager.

Fort Worth, Texas.—Fort Worth Steel & Iron Mill damaged \$150,000 by explosion.

Hattiesburg, Miss.—G. M. Kennedy's store and office building; loss \$50,000.

Hickman, Ky.—Mengel Box Co.'s plant; loss \$25,000.

Jasper, Texas.—Brown & Downs' sawmill; loss \$3000.

Laurel, Miss.—James L. McGowen Lumber Co.'s mill; loss \$4000.

Marshall, Texas.—W. T. Ware's gin, shingle and grist mill; loss \$4000.

Memphis, Tenn.—Hayden Cotton Gin Co.'s bakery; loss \$5000.

Pleasant Hill, Md.—John Smith's residence; loss \$10,000.

Richmond, Va.—Wm. F. Bynum's box factory; loss \$3000.

Rio, Va.—Barnes Compton's residence; loss \$12,000.

Van Buren, Ark.—St. Michael's Catholic Church, Father Frommen, pastor.

Whitlock, Tenn.—Huddleston & Whitlock's tobacco factory; loss \$5000.

#### BUILDING NOTES.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Adrian, Ga.—Church.—Methodist congregation is reported as arranging for the erection of a \$10,000 brick edifice. C. G. Earnest is pastor.

Albany, Ga.—Bank Building.—Bruce & Everett, Atlanta, Ga., are preparing plans for a \$10,000 building to be erected by the First National Bank.

Anderson, S. C.—Hospital.—Anderson Hospital Association will erect a main building two and one-half stories, 44x62 feet, of brick, rear wing ordinary wood construction, with corridor connection, equipping with steam or hot-water heating plant; electric-conduit system; dumbwaiter and hand elevator; cost \$16,000. J. H. Casey was reported last week as preparing plans.\*

Annapolis, Md.—Bungalow.—Engineering-Contracting Co., American Building, Baltimore, Md., has contract to erect bungalow reported February 7 to be built by William P. Hall, 107 East Lexington street, Baltimore, Md., after plans by Wyatt & Nolting, Keyser Building, Baltimore, Md.

Atlanta, Ga.—Temple.—Bruce & Everett are preparing plans for Beth Israel Jewish Synagogue to be erected at a cost of \$15,000.

Atlanta, Ga.—Store and Office Buildings.—It is announced that James W. English will erect three four-story brick buildings.

Atlanta, Ga.—Auditorium and Armory.—Atlanta Auditorium-Armory Co., recently reported incorporated to build auditorium and armory, will erect a fireproof building 200x300 feet; cost \$200,000; architect has not been selected.

Baltimore, Md.—Store Building.—Referring to store building to be erected at 35 West Lexington street by Wm. A. Flamm, 126 North Calhoun street, the following contractors are estimating on construction: James Worthington, 120 North Calhoun street; J. H. Walsh & Bro., 321 Clay street; Henry S. Rippel, 7 Clay street; Joseph H. Schamberger, 2122 East Baltimore street; Willis & Mason, 322 West Biddle street; Geo. Bunnecott & Sons, 305 St. Paul street; McLaughlin Bros., 100 East Lexington street; John Hughes, Jr., 104 East Saratoga street; Atlas Construction Co., Continental Building, and J. J. Walsh & Son, 1525 Maryland avenue; four stories, 16x30 feet; brick with stone trimmings; structural iron and steel; slate roof; metal ceiling; electric wiring and fixtures; steam heating system; John Freund, Jr., architect, Vansant Building, 210 East Lexington street.

Baltimore, Md.—Dwellings.—George G. Ruppersberger, 2632 Pennsylvania avenue, will erect three three-story brick dwellings on Pennsylvania avenue near North avenue; Clarence E. Anderson, architect, Law Building, 225 Courtland street.

Baltimore, Md.—Store Building.—Julius Gutman & Co., 201 and 203 West Lexington

street, will remodel their store buildings at 201 and 203 West Lexington street and connect them with store building at 205 West Lexington street, to which alterations will also be made; Charles E. Cassell & Son, architects, Law Building, 225 Courtland street.

Baltimore, Md.—Amusement Building.—Sigmund Lubin, 404-406 East Baltimore street, will expend about \$8000 in remodeling amusement hall at 404-406 East Baltimore street.

Baltimore, Md.—Dwellings.—E. A. Blackshear, 252 Eutaw place, has awarded contract to M. H. Murray, 3038 West North avenue, for the construction of 11 two-story brick dwellings at 10th and Baker streets, Walbrook, to cost about \$22,000.

Baltimore, Md.—Athletic Club.—The Nonpareil Athletic Club, 906 Eastern avenue, is contemplating the erection of clubhouse with capacity of seating several thousand persons in exhibition hall.

Baltimore, Md.—Nursery Building.—St. Martin's Roman Catholic Church, Fulton avenue and Fayette street, will erect day-nursery building. McIver & Piel, Builders' Exchange Building, 2 East Lexington street; Wm. T. Murphy, 908 North Howard street; Henry Smith & Sons Company, 116 South Regester street; A. Knell, Jr., 218 St. Paul street, are estimating on construction; bids to be in February 18; Thomas C. Kennedy, architect, 331 North Charles street.

Baltimore, Md.—Dwellings.—Walter B. McCordell, 43 Franklin Building, Baltimore and North streets, will erect 28 two-story brick dwellings on Monroe, between Baker and Presbury streets, to cost about \$62,000; John R. Foraythe, architect, 411 St. Paul street.

Baltimore, Md.—Dwelling.—Referring to dwelling to be erected at Roland Park by Joseph Bowes, 230 Equitable Building, the following contractors are estimating on construction: Roland Park Company, Roland Park; Gladfelter & Chambers, 2072 Woodberry avenue; A. F. West, 217 South Gilmore street, and Willard E. Harn, 2700 Huntingdon avenue; 2½ stories; brick and frame construction; electric wiring and fixtures; sanitary plumbing; heating system; bids to be in March 1; Bayard Turnbull, architect, 12 East Lexington street.

Beaumont, Texas.—Business Building.—Beaumont Construction Co. has contract to erect one-story building 41x50 feet of hollow-cement blocks for F. A. Doyle.

Birmingham, Ala.—Store and Office Building.—J. A. Van Hoose and the McLester heirs have plans under way for the erection of a seven-story steel-frame store and office building on site 57½x100 feet.

Birmingham, Ala.—Store Building.—Loverman, Joseph & Loeb, it is reported, will build an addition to store building.

Birmingham, Ala.—Church.—Bids are being received for edifice to be erected by Southside Baptist Church after plans by Warren & Welton; 200x130 feet; cost \$70,000; main auditorium seating capacity of 800.

Birmingham, Ala.—Warehouse.—Wimberly & Thomas Hardware Co. is arranging for erection of four-story brick warehouse, 250x140 feet, to cost \$165,000.

Bristol, Tenn.—Tanks and Warehouses.—Standard Oil Co., 26 Broadway, New York, it is reported, has purchased property on which to erect tanks and warehouses.

Brownwood, Texas.—Bank Building.—Coggins Bros. & Ford have purchased site on which to erect bank building.

Brunswick, Ga.—Lumber Slip.—Reported that the Brunswick Steamship Co. and the Atlanta, Birmingham & Atlantic Railroad Co., controlled by Harry M. Atkinson, 202 Empire Building, Atlanta, Ga., are arranging to build lumber slip to cost \$300,000.

Charleston, W. Va.—Building.—Capital City Supply Co. will erect a four-story and basement reinforced-concrete building 63x146 feet; cost \$50,000. Electric freight elevator will be installed. Character of heating plant and lighting fixtures not decided.

Charleston, S. C.—Building.—Bids will be received at Bureau of Yards and Docks, Navy Department, Washington, D. C., until March 23 for constructing a frame dispensary building at navy-yard; plans and specifications at bureau or will be furnished by commandant of navy-yard named; H. H. Rousseau, chief of bureau.

Charleston, W. Va.—School Buildings.—An election will be held February 28 to vote on a \$115,000 bond issue for the school buildings recently referred to. George S. Laird is superintendent.

Charleston, W. Va.—Lockhouses.—Bids will be received at the United States Engineers' Office, Wheeling, W. Va., until March 15 for building eight lockhouses, Nos. 4, 5, 6, 7, 8, 9, 10 and 11, Kanawha river, W. Va.; information furnished on application at office of

United States Engineer, Wheeling, W. Va., and Charleston, W. Va.; F. C. Boggs, captain engineer.

Charlotte, N. C.—Apartment-house.—Leonard L. Hunter is preparing plans for a two-story apartment-house to be erected by Brown & Co. at a cost of \$25,000.

Charlotte, N. C.—Cotton Warehouse.—C. C. Moore and associates will organize company with \$100,000 capital stock for the erection of cotton warehouse.

Chattanooga, Tenn.—Church.—Contract will be let about June 1 for edifice reported February 7 to be erected by M. E. Church, South; cost \$20,000. It is proposed to install steam or hot-air heating plant and electric incandescent lights. Architect has not been selected. J. S. Gloseco is pastor.

Clarkburg, W. Va.—Telephone Exchange.—Reported that the Southern Bell Telephone & Telegraph Co. (main office Atlanta, Ga.) will expend \$30,000 in improvements to telephone exchange.

Cleveland, Tenn.—College Building.—It is proposed to rebuild main building of Centenary Female College, reported burned at a loss of \$35,000. Rev. David Sullivan, D. D., is president.

Columbus, Ga.—Association Building.—M. C. Barlow has contract at \$14,207 for building for colored Y. M. C. A. after plans by T. W. Smith & Co.; three stories and basement; brick with the roof; modern plumbing. Geo. McChan & Son, Valdosta, Ga., have contract to install steam heating plant.

Commerce, Ga.—Courthouse.—Jackson county is reported as having awarded contract to M. T. Lewman & Co. of Louisville, Ky., at \$25,000, to remodel courthouse.

Cumberland, Md.—Theater.—W. & F. P. Mellinger, 16 North Centre street, are having plans prepared by Albert Westover, Philadelphia, Pa., for theater to be occupied by the Mellinger Bros. Dramatic Association, reported February 14 as organized. The building will be 66x200 feet and cost \$100,000. A blower-system heating plant and electric fixtures will be installed.\*

Dallas, Texas.—Church.—It is reported that the First Methodist Church will erect \$100,000 edifice with a seating capacity of about 2000 W. C. Everett, C. W. Pardue, W. Reid and others are members of committee recently appointed. Dr. J. W. Hill is pastor.

Dallas, Texas.—Warehouse.—Reported that the Crane Company of Chicago, Ill., will erect a six-story warehouse of reinforced-concrete construction; cost about \$90,000. James Ludlow is local manager.

Decatur, Ala.—Business Building.—Jones Cotton Co. is completing arrangements for erection of three-story brick building.

Duncan, I. T.—Hotel.—J. H. Pry is reported as having plans and specifications prepared for a \$300,000 hotel.

Eagle Lake, Texas.—Bank Building.—G. M. Jackson is reported as having contract at \$4800 for erection of building for State Bank.

Erlington, Ky.—Bank Building.—C. C. Givens and C. L. Flinley have organized the People's National Bank and purchased site at \$1000 on which a three-story brick building will be erected.

Fayetteville, Ark.—Church.—Building committee of First Baptist Church is considering plans for a brick and stone edifice. W. A. Whittle is pastor.

Fort Worth, Texas.—Warehouse.—Andre Long is arranging for the erection of a five-story warehouse.

Fort Worth, Texas.—Dwelling.—Lusher & Reckitt have contract to erect brick residence for Burney Anderson after plans by Hubbel & Greene.

Fort Worth, Texas.—Building.—E. F. Westerman has contract to erect a two-story brick building 58x64 feet for E. T. Ambler after plans by Smith & Schenck; cost \$15,000; hot-air heating plant.

Frederick, Md.—Hotel.—It is proposed to erect a \$25,000 hotel. Installing elevator, steam heat, etc. Chas. Wertheimer, 9 North Market street, is interested.

Gadsden, Ala.—Building.—W. T. Christopher has contract to erect building for the Caldwell & Spence Company, for which A. D. Simpson was reported previously as preparing plans: three stories, 250 feet long.

Georgetown, S. C.—Courthouse.—The Legislature has passed a bill authorizing the building of a \$10,000 addition to the Georgetown county courthouse. Address J. B. Johnson, Supervisor.

Georgetown, S. C.—School Building.—School Trustees will ask bids for the erection of proposed \$35,000 building.

Gibson, La.—Store Building.—Dixie Hardware & Furniture Co., Ltd., will erect a two-story brick building.\*

Greenville, S. C.—Business Building.—W. P. Conyers will rebuild business building recently burned.

Hattiesburg, Miss.—School Building.—City will issue \$40,000 of bonds for school purposes. Address The Mayor.

Hattiesburg, Miss.—Store and Office Building.—Reported that G. M. Kennedy will rebuild store and office building reported burned at a loss of \$50,000.

Hot Springs, Ark.—Trustees of Hot Springs School District, Dr. W. H. Connell, president, will receive bids until March 6 for furnishing materials and constructing high-school building; plans and specifications on file at secretary's office, Hot Springs; also at Builders' Exchange in Kansas City, Mo.; Little Rock, Ark.; Memphis, Tenn., and St. Louis, Mo., and at office of Arkansas Brick & Manufacturing Co., Little Rock, Ark.; also at office of J. W. Gollucke & Co., architects, suite 408 to 416 Temple Court Building, Atlanta, Ga.; certified check for \$2000 must accompany each bid; usual rights reserved; plans and specifications can be obtained on deposit of \$50.

Houston, Texas—Temple.—Charles D. Wolf, chairman building committee, will receive bids until February 26 for construction of Beth Israel Temple as per plans and specifications on file at office of C. H. Page, Jr., architect, and the store of Well & Wolf. Certified check for \$500, payable to Jules Hirsch, president of congregation, must accompany bid. Bids to be made as follows: Bid No. 1 for the construction of building; bid No. 2 for the heating, plumbing and gas-piping; bid No. 3 for electric wiring; usual rights reserved.

Huntington, W. Va.—Store Building.—Reports state that W. G. Hensley has awarded contract for the erection of modern brick building.

Huntington, W. Va.—Office Building.—Rabenstein & Warne, Charleston, W. Va., are preparing plans for 10-story building, 69x120 feet, to be erected by General Holley of Charleston, W. Va., at a cost of \$250,000. A heating and lighting plant will be installed.

Huntington, W. Va.—Depot.—Reported that the Chesapeake & Ohio Railway is completing arrangements for the erection of proposed three-story depot; stone construction; cost \$100,000. J. W. King is supervisor of bridges and buildings.

Independence, Mo.—Business Buildings.—It is stated that Ira J. Hedrick will erect modern business and office buildings.

Indian Landing (not a postoffice), Md.—Bungalow.—Engineering Contracting Co., American Building, Baltimore, Md., has contract to erect bungalow 50x50 feet for Dr. J. Williams Lord, 1101 North Charles street, Baltimore, Md. The building will be constructed of frame with asbestos shingle roof.

Jacksonville, Fla.—School.—J. A. McDonald has contract at \$64,700 for erection of Duval school building; plans by W. B. Camp.

Jacksonville, Fla.—Apartment-house.—W. B. Camp is preparing plans and specifications for two-story 68x105-foot apartment-house to cost \$20,000; owner, W. A. Macduff.

Jacksonville, Fla.—Apartment-house.—Brinkley & Bains will erect three-story apartment-house, 46x80 feet, to cost \$20,000; plans and specifications by W. B. Camp; will be ready for bids in 30 days.

Johnson City, Tenn.—Church.—Baptist congregation is having plans prepared by R. H. Hunt, Chattanooga, Tenn., for edifice which it proposes to erect. G. W. Sitton is chairman of building committee.

Kansas City, Mo.—Residence.—Reported that Dr. E. M. Hetherington has secured permit for erection of \$10,000 stone dwelling at 3527-29 Main street.

Kansas City, Mo.—Hotel.—Baltimore Hotel Co. is having plans prepared by Louis G. Curtis for a 12-story addition, 115x120 feet, to hotel.

Kansas City, Mo.—Hotel.—Smith & Rea are preparing plans for seven-story addition to Victoria Hotel.

Kansas City, Mo.—Business Building.—Bay State Land Co. of Boston is reported as beginning construction of a five-story business building on site 50 feet wide. C. J. Hubbard of Kansas City is interested.

Laurel, Miss.—Courthouse.—Plans by P. J. Krause, Meridian, Miss., have been adopted for proposed \$120,000 courthouse.

Lauderdale, Fla.—Residence.—Mrs. K. B. Gallison will erect residence 40x90 feet; frame construction; modern conveniences. W. B. Camp of Jacksonville, Fla., is the architect.

Little Rock, Ark.—Apartment-house.—The apartment-house to be erected by Charles S. Steffert, for which Charles L. Thompson was reported last week as preparing plans, will

be seven stories, 150x65 feet; ordinary construction with fireproof walls; electric fixtures; cost \$40,000 to \$50,000.

Livingston, Texas—Bank Building.—It is reported that the First National Bank, recently organized by the Carlisle Manufacturing Co. and others, will erect a three-story brick building.

Madison, Ga.—College Building.—Winder Lumber Co., Winder, Ga., has contract at \$30,000 for erection of academic building for boys' dormitory.

Magnolia, Miss.—School Building.—City will vote March 22 on the \$35,000 bond issue recently mentioned for the erection of school building. Address The Mayor.

Mammoth Springs, Ark.—School Building.—J. W. Carlton has contract at \$8600 for erection of school building.

Memphis, Tenn.—Business Building.—Joe J. Mickie, Brumley Bros. and J. S. Cobb will erect a two-story building 75x150 feet.

Memphis, Tenn.—Newspaper Building.—Selden-Breck Construction Co., Fullerton Building, St. Louis, Mo., with branch offices in Memphis, Tenn., and Louisville, Ky., has contract for the erection of building for the Commercial Appeal; five stories, 37x150 feet; fireproof construction; steam heat; cost \$200,000. Shaw & Pfell prepared the plans.

Milledgeville, Ga.—City Hall.—City will vote March 12 on a \$10,000 bond issue for erecting city hall. Chas. L. Moore is City Clerk.

Mobile, Ala.—Clubhouse.—Athelstan Club contemplates expending \$20,000 in improvements.

Moss Point, Miss.—School Building.—Contract will be let about April 1 for brick school building, for which a bond issue was reported recently to be voted. About \$20,000 will be expended. Architect has not been selected. A. H. Smith is Mayor.\*

Mt. Olive, N. C.—City Hall and Market-house.—Town is reported to erect city hall and market-house to cost about \$10,000. Address Town Clerk.

Nashville, Tenn.—Dwelling.—W. W. Dillon has not accepted any plans for his proposed \$15,000 dwelling recently reported.

Nacogdoches, Texas—Church.—It is reported that the First Methodist Church has completed arrangements for the erection of \$15,000 edifice. William B. McKnight, W. H. Williams, R. F. Davis and others are members of the building committee. J. W. Mills is pastor.

New Orleans, La.—Building.—Louisiana Molasses Co. will soon let contract for erection of five-story brick building 63x87½ feet. Portsmouth, Va.—Hotel.—J. S. Mansfield has purchased site on which to erect a three or four-story hotel.

Raleigh, N. C.—Freight Station.—Contract will be let within 60 days for freight station reported recently to be erected by Norfolk & Southern Railway. J. W. Howard is chief engineer of construction.

Raleigh, N. C.—Sunday-school.—Edenton Street Methodist Church is arranging for the erection of \$20,000 Sunday-school building. Address The Pastor.

Red Springs, N. C.—Building.—Plans prepared by H. E. Bonitz have been adopted for building to be erected by the North Carolina Military Academy; brick and stone; cost \$10,000.

Roanoke, Va.—Dwelling.—J. B. Fishburne had plans prepared by H. H. Huggins, 709 Terry Building, for \$30,000 residence.

Roanoke, Va.—Hotel.—R. H. Angell has had plans prepared by H. H. Huggins, 709 Terry Building, for addition 30x70 feet to Central Hotel; cost \$5000.

Roanoke, Va.—School Building.—H. H. Huggins, 709 Terry Building, is preparing plans for additions to Melrose and Gilmer Avenue graded school buildings to cost \$12,000 and \$8000 respectively; brick; steam heat.

Roanoke, Va.—Store Building.—H. H. Huggins, 709 Terry Building, has completed plans for building to be erected by Southern Investment Co.; 100x100 feet; slow-burning construction; fireproof windows and doors; electric elevators; sprinkler system; cost \$60,000.

Robert Lee, Texas—Jail Building.—Coke county has voted affirmatively the \$8000 jail-bond issue mentioned January 31. Address County Clerk.

Sewells Point, Va.—Exposition Building.—John Monk, Norfolk, Va., is lowest bidder, at \$21,500, and has been awarded contract for the erection of the Graphic Arts building on the Jamestown Exposition grounds.

Sewells Point, Va.—Pier.—Jamestown Exposition Co. office at Norfolk, Va., is considering building another pier on the Elizabeth river.

Sewells Point, Va.—Exposition Building.—All bids for the erection of Baltimore (Md.) building at the Jamestown Exposition have been rejected and new bids are being received, in accordance with revised plans by Mott & White, Professional Building, North Charles street, Baltimore, Md.; contract was recently reported as having been awarded to McLaughlin Brothers, Baltimore, Md.

Sewells Point, Va.—Exposition Building.—J. C. Curtis, Newport News, Va., has contract to erect building for Young Women's Christian Association referred to February 14; two stories, 60x60 feet; frame; mill construction; electric fixtures; cost \$6000.

Somerset, Ky.—Skating Rink.—G. L. Hunt & Son, Middlesboro, Ky., have purchased site on which to erect building 75x200 feet, to cost \$8000, for skating rink and amusement hall.

South St. Joseph, Mo.—Warehouse.—John Donovan states there is no truth in the report mentioned last week that he would erect warehouse.

St. Charles, Mo.—College Building.—Mariner & Le Baume, 1604 Chemical Building, St. Louis, Mo., are preparing plans for college building recently reported to be erected by Presbyterian Synod of Missouri; 136x65 feet; ordinary brick; steam heat; electric fixtures; cost \$40,000.

Stevenson, Md.—Dwelling.—Engineering Contracting Co., American Building, Baltimore, Md., has contract to erect dwelling for J. G. Wilson after plans by Parker & Thomas, Union Trust Building, Baltimore, Md.; two stories, 25x36 feet; first story of stone and above of timber with pebble finish; slate roof; cost \$20,000. Steam heat and electric lights will be installed.

St. Louis, Mo.—Dwelling.—Murch Bros. Construction Co. has contract to erect \$60,000 residence for Will S. Thompson after plans by Barnett, Haynes & Barnett.

St. Louis, Mo.—Theater and Hotel.—American Amusement Co. will shortly let contract for hotel and theater to be erected after plans by F. C. Bonsack; 12 stories; 127x18 feet; cost \$500,000.

Tampa, Fla.—Warehouse and Dock.—Hendry & Knight Company is arranging for erection of warehouse 210x200 feet at mouth of Hillsborough river on deep water and 500 feet of dockage, also on deep water. About \$50,000 will be expended. The building will be occupied by E. Berger & Co.

Taylor, Texas—Opera-house.—Carl Grau will remodel two-story brick building 50x125 feet as opera-house, expending about \$25,000. Henry Struve is architect.\*

Washington, D. C.—Government Building.—The Bureau of American Republics, John Barrett, director, 2 Jackson place N. W., will hold competition among architects for the design of its buildings to be erected on 17th street N. W., and for which \$750,000 is available.

Washington, D. C.—Banking Structure.—The United States Trust Co., Daniel N. Morgan, president, 611 14th street N. W., has awarded contract to Louis H. Emmert, 1110 15th street N. W., for remodeling for banking purposes building at 611 14th street N. W.; Frank P. Milburn & Co., architects, Home Life Building, 15th and G streets N. W.

Washington, D. C.—Dwellings.—Margaret E. Murphy has awarded contract to William Murphy, 1331 East Capitol street, for the construction of four two-story brick dwellings at 1340-1346 East Capitol street to cost \$15,000. Hot-water heating systems will be installed.

Washington, D. C.—Dwellings.—S. W. Woodward of Woodward & Lothrop, 11th and F streets N. W., has awarded contract to S. H. Edmonston, 611 G street N. W., for the construction of three four-story and two three-story dwellings at 2131 and 2132 Bancroft place, 2119 S street N. W. and 2120 Le Roy place; brick with limestone trimmings; slate and tin roofs; electric wiring and fixtures; sanitary plumbing; hot-water heating systems; cost \$62,600; Frederick B. Pyle, architect, 1003 F street N. W.

Washington, D. C.—Dwellings.—James M. Carmody, builder, 1413 G street N. W., will erect two two-story brick dwellings at 711-713 3d street N. E. and six two-story brick dwellings at 300-310 G street N. E. to cost \$24,000. Hot-air heating systems will be installed; A. M. Poynton, architect, 911 French street N. W.

Washington, D. C.—Dwellings.—D. W. Beech has awarded contract to Zep Bros., 1305 F street N. W., for the construction of two two-story brick dwellings with hot-air heating systems at 610-612 Harvard street to cost \$6000.

Washington, D. C.—Dwelling.—James S. Harlan, member of Interstate Commerce Commission, has purchased lot on Rhode

Island avenue near 17th street and has commissioned Wood, Donn & Deming, architects, 808 17th street N. W., to prepare plans and specifications for large dwelling to be erected on the site.

Washington, D. C.—Theater.—The Lincoln Hall Association, W. H. Rapley, manager, 1325 E street N. W., has commissioned Appleton P. Clark, Jr., architect, 605 F street, to prepare plans and specifications for reconstructing the Academy of Music, which was recently destroyed by fire.

Washington, D. C.—Dwelling.—It is reported that Perry Belmont, New York, has commissioned Horace Trumbauer, architect, Land Title Building, Philadelphia, Pa., to prepare plans and specifications for the construction of two-story limestone dwelling, 152x100 feet, to be erected at corner New Hampshire avenue, 15th and R streets N. W.

Washington, D. C.—Storage Warehouse.—The Security Storage Co. has commissioned Hill & Kendall, architects, Corcoran Building, 15th and F streets N. W., to prepare plans and specifications for the construction of a fireproof storage warehouse to cost about \$100,000. (Previously reported.)

Washington, D. C.—Referring to Masonic Temple to be erected at corner New York avenue, 13th, 14th and H streets N. W. by the Masonic Temple Association, John H. Small, president, 14th and G streets N. W., the following contractors are estimating on construction: James L. Parsons, 13½ street and Pennsylvania avenue N. W.; Richardson & Burhess, Colorado Building, 14th and G streets N. W.; John McGregor, 729 12th street N. W.; James L. Marshall, 614 Q street N. W.; John Nolan, 1413 G street N. W.; Wm. P. Lipscomb & Co., 1405 F street N. W.; George A. Fuller Company, Munsey Building; W. E. Speir Company, 1342 New York avenue N. W.; Thompson-Starrett Company, Commercial Bank Building, 14th and G streets N. W.; Norcross Bros. Company, Colorado Building, and Fissell & Wagner, Home Life Building, 15th and G streets N. W.; six stories; Indiana limestone, brick and terra-cotta exterior; steel frame fireproof construction; terra-cotta partitions; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevators; bids to be in March 9; Wood, Donn & Deming, architects, 807 17th street N. W.

Washington, D. C.—Store and Office Building.—Wm. C. Dodge, 700 9th street N. W., will make extensive alterations to store and office building at northwest corner 9th and G streets N. W. Work includes structural iron and steel, sanitary plumbing, steam-heating system and electric wiring and fixtures. John McGregor, 729 12th street N. W.; Richardson & Burgess, Colorado Building, 14th and G streets N. W.; James L. Parsons, 13½ street and Pennsylvania avenue N. W.; Samuel J. Prescott Company, 700 13th street N. W., and Wm. P. Lipscomb, 1405 F street N. W.; Appleton P. Clark, Jr., architect, 605 F street N. W.

Washington, D. C.—Hospital.—Referring to tuberculosis hospital to be erected by H. B. Macfarland, John Biddle and Henry L. West, Commissioners of District of Columbia, the following contractors are estimating on construction: Arthur Cowsill, Colorado Building, 14th and G streets N. W.; Thompson-Starrett Company, Commercial National Bank Building, 14th and G streets N. W.; I. Pavarini, 814 18th street N. W.; Wm. E. Mooney, 21 14th street N. W.; Burgess & Parsons, 627 F street N. W.; Brennan Construction Co., foot 31st street N. W.; R. P. Humphrey, 912 H street N. E.; Thomas H. Melton, 19 T street N. W.; Richardson & Burgess, Colorado Building, all of Washington, D. C.; Engineering-Contracting Co., American Building, Baltimore, Md.; Appleton & Purnell, 1204 Chancellor street, Philadelphia, Pa., and Herman Probst, 10 West 22d street, New York city; main building five stories, with wings on each side four stories; brick with terra-cotta trimmings; steel frame fireproof construction. Commissioners will receive bids until February 23; Frank Miles Day, architect, Philadelphia, Pa.

Washington, D. C.—Apartment-houses.—Patrick T. Moran, 3259 M street N. W., has awarded contract to James M. Dunn, 1324 5th street N. W., for the construction of two apartment-houses at 1503 and 1507 30th street N. W.; three stories; brick with stone trimmings; the roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost about \$35,000; Julius Wenig, architect, 1223 F street, N. W.

Washington, D. C.—Church.—St. Patrick's Church, Rev. D. C. Stafford, rector, 619 10th street N. W., has commissioned Williams & Wagner, architects, 1330 13th street N. W., to prepare plans and specifications for alterations to St. Patrick's Church at 10th and G streets N. W. Two spires will be built and a number of other improvements made.

Washington, D. C.—Fire Department Building.—Plans and specifications have about been completed for fire department building to be erected in the Hillbrook subdivision by the District Commissioners at cost of about \$20,000. Bids on construction will soon be asked by advertisement.

Washington, D. C.—Office Building.—Jordan & Bloomer, 1308 G street N. W., have commissioned B. Stanley Simmons, architect, 931 F street N. W., to prepare plans and specifications for remodeling office building at 1305 F street N. W.

Washington, D. C.—Apartment-house.—Lewis E. Bruninger, builder, 1122 Dartmouth street N. W., will erect apartment house on Columbia road between 17th and 18th streets N. W.; 42x100 feet; brick with stone trimmings; structural iron and steel; electric wiring and fixtures; sanitary plumbing; heating system; cost about \$35,000; N. H. Grimm, architect, 627 F street N. W.

Washington, D. C.—Dwelling.—Gen. H. C. Corbin, U. S. A., has awarded contract to John S. Larcombe, 808 17th street N. W., for the construction of three-story brick-and-stone dwelling at 22d and R streets N. W. Electric wiring and fixtures, sanitary plumbing, heating system and elevator will be installed; L. W. Norris, architect, 808 17th street N. W.

Waynesboro, Ga.—Church.—Methodist Episcopal Church South will rebuild edifice recently burned. R. C. Neely is chairman of building committee.

Wilmington, N. C.—Residence.—H. E. Bonn has prepared plans for residence to be erected by Mrs. W. G. Webb.

Winchester, Ky.—Tobacco Warehouse.—Clark County Equity Warehouse Co., reported incorporated last week, will erect a two-story frame warehouse 64x200 feet, which will be equipped with steam drier; capacity 25,000 to 40,000 pounds; electric lights, water-lift elevators, etc. D. B. Hampton is president.

Winnboro, S. C.—Church.—Reported that the Methodist congregation will erect \$8000 edifice. Rev. Henry Stokes is pastor.

## RAILROAD CONSTRUCTION.

### Railways.

Alexandria, La.—The Rock Island's line from Winnfield to Alexandria is reported completed to within six miles of Alexandria and everything is ready to lay track on the further extension from Alexandria to Eunice, La.

Asheville, N. C.—The Asheville Rapid Transit Co., it is reported, has let contract to the Railways Construction & Securities Co., 141 Broadway, New York, to build its proposed line from Asheville to Overlook Park, eight miles. J. K. Voshell of Baltimore, Md., is president, and Charles E. Van Bibber, 60 Wall street, New York, is chief engineer.

Atlanta, Ga.—An officer of the Louisville & Nashville Railroad, Louisville, Ky., writes the Manufacturers' Record that he has no information concerning a plan to build from Atlanta to Albany, Ga. This denies a recent press report that the company was surveying for such an extension.

Alexandria, La.—Ogden & Scott have, it is reported, taken a grading contract on the Louisiana & Arkansas line from Tioga, La., to the Valley Bridge.

Bartlesville, I. T.—D. H. Rhodes is chief engineer of the St. Louis, Bartlesville & Pacific Railway, recently incorporated. His address is at Bartlesville.

Baton Rouge, La.—C. A. Stone, Elliott Wadsworth and C. D. Wyman, representing the Stone & Webster Engineering Corporation of Boston, have, it is reported, inspected the Baton Rouge Electric Railway with a view to its purchase and use in the construction of the New Orleans & Baton Rouge Electric Railway, and it is expected that the deal will be closed within a week. Joseph Gottlieb of Baton Rouge is also interested. A later report says that the option has been exercised and that purchase price will be paid March 1. New officers are C. D. Wyman, president; O. K. Todd, secretary; A. S. Pratt, treasurer; J. B. Leonard, assistant treasurer and assistant secretary, all of Boston. W. Osgood Orton is promoter of the interurban and C. F. Young is engineer.

Beaumont, Miss.—An official of the Mobile, Jackson & Kansas City Railroad informs the Manufacturers' Record that there is nothing in the press report that the company contemplates building a branch from Beaumont to Pascagoula, Miss.

Birmingham, Ala.—An officer of the St. Louis and San Francisco Railroad Co. at St. Louis writes the Manufacturers' Record that the matter of a low-grade line between Birmingham and Jasper, Ala., has not sufficiently progressed to justify publication. This refers to a report that the Frisco and Illinois Central would jointly build a line between the points named.

Birmingham, Ala.—The Birmingham Terminal Co. it is reported, has increased its capital stock from \$50,000 to \$150,000 and has filed papers for the issue of \$3,000,000 of bonds. G. B. McCormack is president and J. S. B. Thompson is secretary. This confirms a previous report.

Brookhaven, Miss.—The Natchez & Eastern, which is the Mississippi Central Railroad's extension, is reported ready for track-laying between Natchez and Roxie, Miss., on the Yazoo & Mississippi Valley Railroad. Between Roxie and the Homochitto river, 20 miles, good progress is being made on grading. The Shields-Bogart Construction Co. are the contractors.

Bryan, Texas—J. M. Hall of Fort Worth, Texas, is reported to be conferring with the promoters of the proposed electric railway from Bryan to College. He may do the engineering. Another report says that J. M. North, representing L. C. Cole & Co. of Fort Worth, is inspecting the route.

Buckhannon, W. Va.—The Manufacturers' Record is officially informed that the Buckhannon & Northern Railroad Co. has not contemplated resuming construction on the line from Buckhannon to Fairmont, W. Va. Some right of way matters are being closed up, but conditions are unchanged. Samuel D. Brady of Parkersburg, W. Va., is chief engineer.

Central City, Ky.—M. M. Wheeler, chief engineer of the Kentucky Midland Railroad, is reported as saying that seven and one-half miles of line from Central City toward Madisonville, 25 miles, are nearing completion. Surveys are completed for 11 miles and right of way secured. A. B. Wood is contractor. G. B. Hengen, Monadnock Block, Chicago, Ill., is president of the railroad and also of the Midland Coal Co.

Charlotte, N. C.—At the meeting at J. T. Helm's store concerning the proposed electric railway it was decided to organize a company named the Union, Stanly & Calcarus Construction Co., capital \$450,000, to build a line from Concord or Salisbury Mount Pleasant, Locust Level, Unionville Monroe, Marshville and Wingate. Mount Pleasant is reported to have voted \$20,000. James C. Long and others, as previously reported, are interested.

Chattanooga, Tenn.—The Queen & Crescent Route has begun construction at Clifton for 27 additional yard tracks with a capacity of 1000 cars. H. E. Warrington is chief engineer at Cincinnati, Ohio. The Southern Railway is also pushing work on the construction of three miles of additional track at Clifton.

Chattanooga, O. T.—Reported that the Rock Island system has decided to build a line from Chattanooga to Archer City, Texas. J. B. Berry is chief engineer at Chillicothe, Ill.

Cleburne, Texas.—The Gulf, Colorado & Santa Fe Railway is reported to have bought land to enlarge its terminals in Cleburne. C. F. W. Felt is chief engineer at Galveston, Texas.

Dalhart, Texas.—F. T. Burnham of Beloit, Kan., is promoter of the Nebraska, Kansas & Southwestern Railway, which proposes to build a line from Superior, Neb., through Kansas and Oklahoma to Dalhart, Texas; capital, \$1,500,000. The directors are E. J. Williams and John Q. Adams of Stockton, Kan.; Chas. J. Shelenberger, Ransom, Kan.; A. S. Foulke and J. C. Hopper, Ness City, Kan.

Dallas, Texas.—The Consolidated Securities Co. of Dailins and New York is reported chartered, with headquarters in the Wilson Building, and it is rumored that it will finance the new street and interurban railway company; capital, \$250,000. The incorporators are W. D. Hume, D. E. Waggoner, A. A. Jackson, N. Nigro, John T. Jones, C. L. Wakefield, W. H. Middleton, Isaac B. Walker, J. B. Adoue and J. C. Colt, all of Dallas.

Due West, S. C.—Reported that the people of Due West have voted \$12,000 of bonds to build a railroad from Due West to connect with the Southern Railway at Donaldson's Station. R. S. Galloway is president of the Due West Railroad Co.

Eureka Springs, Ark.—The Arkansas, Oklahoma & Western Railroad Co., capital \$3,000,000, has been chartered for a standard-gauge line from Eureka Springs via Rogers, Springtown and Siloam Springs to Pryor Creek, I. T. It proposes to purchase the Rogers Southwestern Railway Co., having a line from Rogers to Springtown, and now building from Springtown to Siloam Springs.

This will be extended to Pryor Creek and from Rogers to Eureka Springs, altogether 62 miles. The incorporators are W. P. Felker, J. E. Felker, F. F. Freeman, Alf L. Williams, J. W. Walker, H. Van Smith and J. S. McLeod.

Fairmont, W. Va.—Survey is reported under way on Mud Lick Run near Shinnston to build a railroad to a new coal mine on the Shreve & Jarvis farm, Baltimore capitalists being interested.

Fayetteville, Ark.—J. C. Bonnell and J. W. Baxter are reported to be working on the plan for an interurban railway system to connect Fayetteville, Harrison, Eureka Springs, Siloam Springs and Batesville, Ark., besides Carthage, Mo.

Fort Smith, Ark.—The Kansas City Southern Railway is reported to be surveying for a new line from Fort Smith to Cedarville and other points. A. F. Rust is engineer at Kansas City, Mo.

Fort Worth, Texas—Concerning a report that the company would increase its yard facilities at Fort Worth, an officer of the Missouri, Kansas & Texas Railway informs the Manufacturers' Record that a storage track has been put in, but he knows of nothing else in contemplation.

Fort Worth, Texas.—An officer of the Texas & Pacific Railway informs the Manufacturers' Record that the outer yard at Fort Worth will be enlarged to provide sufficient storage for 500 cars. The work will be done under the supervision of B. S. Wathen, chief engineer, Dallas, Texas.

Franklin, N. C.—Reported that the Tallulah Falls Railway has completed its extension to Franklin, N. C., and that the Southern Railway will build a line this year from Franklin to Bushnell, N. C., connecting there with a line now under construction from Bushnell to Maryville, Tenn. W. H. Wells is engineer of construction of the Southern Railway at Washington, D. C.

Lyman, Miss.—It is rumored that the Ingram Day Lumber Co. of Lyman is building a railroad from Lyman to Gulfport, Miss.

Gulfport, Miss.—S. J. Casson, general manager of the Gulfport & Northwestern Railway Co., is arranging matters to begin construction on the proposed line to Poplarville, 46 miles. The road is to be completed about January 1 next. The construction contract is to be let this month. The Edward Illinois Lumber Co. of Chicago, Ill., is back of the line.

Haleyville, Ala.—Reported that the Northern Alabama Railroad from Haleyville to Jasper, 31 miles, will be rebuilt immediately. W. H. Wells, engineer of construction of the Southern Railway, Washington, D. C., can give information.

Houston, Texas—C. A. Stone of Stone & Webster, Boston, Mass., is reported as saying that construction of the electric railway from Houston to Galveston will begin as soon as the bill in the Legislature becomes law. M. M. Phinney of Dallas, Texas, represents the company.

Jackson, Ky.—An officer of the Lexington & Eastern Railway Co., Lexington, Ky., writes the Manufacturers' Record that it is probable an extension of three miles will be built next summer up the North Fork of the Kentucky river to accommodate a lumber plant. This is the only extension contemplated. This information denies a report that the company would make a long extension.

Jackson, Miss.—The Pearl River Valley Railroad Co., chartered last year to build a line from Jackson via Carthage to Columbus, Miss., is reported to be filing its charter in various counties through which the road will run and to be obtaining rights of way. It is also said that several grading contracts have been let. Fred W. Herrick of Milwaukee, Wis., is president of the company, and the Herrick-Higgin Syndicate is said to be interested in the timber lands which the road will develop.

Jefferson, Md.—The Jefferson & Braddock Heights Electric Railway from Braddock Heights to Jefferson is reported practically completed.

Joplin, Mo.—The Central & Southeastern Railroad Co., which proposes to build a line from Chanute, Kan., to Memphis, Tenn., 425 miles, is reported to have done 10 miles of grading, built several bridges and partly surveyed the road. A. N. Hoxie is president at Joplin, Mo., and F. S. Hoxie is secretary at 273 Fifth avenue, New York.

Kansas City, Mo.—C. C. McFann, general manager of the proposed Kansas City, Nevada & Springfield Electric Railway, is reported as saying that rights of way have been secured and a franchise in Springfield is awaited. Surveys and estimates are yet to be made, and it is expected to start construction not later than April 15.

Kennett, Mo.—The St. Louis, Kennett & Southeastern Railroad Co. has been granted a charter in Arkansas to build a narrow-gauge line from Kennett into Arkansas, 12½ miles. R. H. Jones is president at Kennett, Mo.

Kerrville, Texas.—An officer of the Kansas City, Mexico & Orient Railway writes the Manufacturers' Record that the company contemplates building a branch from San Angelo to Kerrville, Texas, and surveys may be made shortly, but nothing has been definitely decided upon. M. P. Paret is chief engineer at Kansas City, Mo.

Louisiana, Mo.—Reported that the House of Representatives at Washington has passed a bill introduced by Congressman Champ Clark of Missouri authorizing a bridge across the Mississippi river at Louisiana, Mo., for an electric railway to connect Chicago, St. Louis and Kansas City. The parties interested are D. A. Ball, R. H. Goodman, Harry Higbee, William E. Williams, Charles Dustin, Edward A. Glenn and Davis Wald.

Memphis, Tenn.—The Illinois Central Railroad, it is reported, has purchased 16 acres of land from the new Memphis Jockey Club, this consisting of a long strip to be used as right of way for the Illinois Central Belt Line to be built this year. A. S. Baldwin is chief engineer at Chicago, Ill.

Lynchburg, Va.—J. Thompson Brown of Bristol, Va., and A. J. Gillespie of Bedford county, Virginia, are reported interested in the plan to build an electric railway from a connection with the Lynchburg Traction Co. to a point on the Tidewater Railway via Bedford Alum Springs, about 20 miles.

Manila, Ark.—The Manila & Southwestern Railway is reported to have five and one-half miles in operation from Herman (formerly Culverhouse) to Lunsford, Ark., and the line is to be extended 2½ miles farther to Manila, Ark., but work is temporarily stopped by floods. Surveys have been completed and right of way obtained. F. W. Taylor of Lunsford, Ark., is president, and William M. Kerr is chief engineer at Jonesboro, Ark.

Memphis, Tenn.—Reported that work will soon begin on the proposed line of the Lakeview Traction Co. from Memphis to Clarksville, Miss. R. F. Tate of Memphis is president. The line will be altogether about 100 miles long.

Meridian, Miss.—President S. A. Neville of the Board of Trade has received several communications from the Deemer Manufacturing Co. of Philadelphia, Miss. J. L. Snyder, general manager, looking to the construction of a railroad from Philadelphia to Meridian. Mr. Snyder may present the matter at a meeting of the Board of Trade.

Meridian, Miss.—Representatives of five construction companies are reported to have lately investigated the plan to build a railroad from Meridian east to the Tombigbee river in Alabama. Kuhn, Loeb & Co. of New York are also reported to have sent an agent to investigate it. C. F. Woods and Frank Heiss are interested in the Meridian & Tombigbee Railroad Co., organized sometime ago to build such a line. The McIntyre Tie Co. of Detroit is also reported interested with capitalists of Philadelphia, Pa., in a plan to build the proposed road from Meridian to Naheola. The Southern Railway is also said to be investigating.

Monroe, La.—Reported that a financial plan has been arranged to build the proposed Monroe, Farmerville & Northwestern Railway, which is to extend from Monroe to a connection with the Rock Island at or near Berne, La. Those reported interested are Joseph A. Taylor and Walter C. Teter, 10 Wall street, New York city, and H. H. Childress of Monroe, La.

Nashville, Tenn.—Construction is reported under way between Birmingham, Ala., and Huntsville, Ala., on a line that will, it is said, be used by the Atlanta, Birmingham & Atlantic Railway to reach Nashville. T. M. Steger of Nashville may be able to give information.

New Orleans, La.—C. C. Harvey, president of the New Orleans & Northeastern Railroad, has been elected president of the New Orleans Terminal Co., in which the Frisco system and the Southern Railway are jointly interested, succeeding L. S. Berg, resigned. The company has charge of the building of terminals for the roads interested.

New Orleans, La.—The Colorado Southern, New Orleans & Pacific Railroad Co., which is building a line from DeQuincy to Baton Rouge, La., has, it is reported, been formally transferred to the control of officers of the Frisco system, and A. J. Davidson, president of the latter, has been elected president of the new road.

New Orleans, La.—B. F. Yoakum, chairman of the Rock Island and Frisco systems, is reported as saying that the Frisco will build a passenger terminal in New Orleans at Canal and Basin streets. J. F. Hinckley is chief engineer of construction of the Frisco system at St. Louis, Mo.

Opelousas, La.—A movement is under way to secure the building of a railroad from Opelousas to Ville Platte, 12 miles, and C. S. Fay, general freight agent of the Southern Pacific lines in Louisiana, has inspected the route. A. V. Kellogg is engineer maintenance of way at Houston, Texas.

Pensacola, Fla.—The Pensacola, Alabama & Western Railroad and the Pensacola & Northwestern Railroad have been granted the extension of time requested from the City Council, the ordinance providing that 20 miles of line of each company shall be ready for use in six months under a penalty of \$15,000. Chester H. Pond of Moorhead, Miss.; H. L. Covington of Pensacola, Fla.; J. E. Stillman of Brewton, Ala., and C. A. Johnson of Columbus, Ga., are reported interested in the former and F. C. Brent of Pensacola in the latter.

Rockland, Texas.—The Burr's Ferry, Brownell & Chester Railroad Co. is reported to have awarded contracts for building 25 miles of line from Aldridge to Brownell to the Womack Construction Co., in which Charles M. Womack is interested. P. G. Omohundro of Beaumont is chief engineer of the railroad.

Rome, Ga.—Mr. Benjamin Watts informs the Manufacturers' Record that plans are under way to build an electric railway connecting Rome, Cave Springs, Cedartown, Rockmart, Aragon and Lindell, but the organization of a company is not yet completed.

Rusk, Texas.—Reported that the State Penitentiary Board has ordered the extension of its railroad for three miles from the present terminus to timber lands. The Board's address is Austin, Texas.

Rutherfordton, N. C.—R. B. Seawell of Hendersonville, N. C., is reported to be surveying for the Appalachian Interurban Railway from Rutherfordton to Chimney Rock, N. C.

Salyersville, Ky.—E. E. Parsons, chief engineer, is reported to be surveying at Ivyton, seven miles from Salyersville, for the proposed Kentucky North & South Railroad.

South McAlester, I. T.—The Kansas City, Oklahoma & Gulf Railroad is reported transferred to the Missouri River & Gulf Railroad Co., allied with the Union Pacific. The line is to run from McAlester to Houston, Texas, and part has been graded in Indian Territory. The new directors are A. L. Berger, president, and E. F. Swinney, both of Kansas City, Mo.; C. K. Wells, C. M. Prouty and K. L. Brown. The entire line is to run from Kansas City, and from that point to Denison, Texas, is 420 miles.

St. Louis, Mo.—The West Side Terminal Railway Co. has been chartered with \$1,000,000 capital to build a line about 60 miles long from a point on the Mississippi river three miles below the Missouri river and around the western limits of St. Louis to a point near Jefferson Barracks. The stockholders are Collins F. Newton, Ara D. Neff, William A. Lamping, William H. Miller and F. W. Roenike.

Van Buren, Ark.—The Missouri Pacific Railway will, it is reported, extend its Springfield Southwestern line from Springfield, Mo., to either Van Buren or Fort Smith, Ark. E. F. Mitchell is engineer of construction at St. Louis, Mo.

West Point, Va.—The West Point Traction Co. is reported organized and incorporated to operate motor cars for both freight and passengers. The directors are J. W. Marshall, president; G. E. Guernator, vice-president; J. W. Owens, secretary and general manager; G. E. Guernator, A. Julian Bagby and W. C. Dunham.

Wilmington, N. C.—The Seaboard Air Line Railway Co. is reported to have purchased, through the North Carolina Terminal Co., a block of ground adjoining the present terminals of the railroad in the northern part of Wilmington. John D. Bellamy, counsel of the Seaboard; John S. Armstrong and William McKoy Bellamy are the incorporators of the North Carolina Terminal Co., which has just been chartered with \$350,000 capital. The property has a water frontage of about 264 feet on the Cape Fear river. W. L. Seddon is chief engineer at Portsmouth, Va.

#### Street Railways.

Baltimore, Md.—Mr. L. G. Turner, president of the Lorraine Electric Railway Co., 206 Union Trust Building, informs the Manufacturers' Record that its line is surveyed from a connection with the United Railways

of Baltimore at Dickeyville to and into Lorraine Cemetery, about one and one-half miles. It will be single track, with 65-pound T rail. The road will probably be built under the direction of Mr. Clinton M. Johnson, engineer in charge, and not by contract. The other officers of the company are James H. Preston, vice-president; William, C. Page, treasurer; J. M. Blackburn, secretary, the other members of the board of directors being William E. Zimmerman, Edward W. Turner and Dr. George Y. Everhart.

Corpus Christi, Texas.—The Corpus Christi Street Railway Co., capital \$20,000, has been organized and will apply for a charter to build a line several miles long. The directors are M. G. Blake, G. R. Scott, E. A. Bone, E. B. Cole, George W. Grinn.

Denton, Texas.—Reported that survey has begun for a street railway to begin active construction within a month.

Weatherford, Texas.—An official letter to the Manufacturers' Record says that the City Council of Weatherford has granted 50-year franchise to G. M. Bowie, his associates and assigns, for an electric street railway, one mile of road to be completed and in operation within a year. This confirms a previous report.

Yazoo City, Miss.—The Sanders-Johnson Company has made a proposition to the City Council to build a street railway, taking bonds in payment; line to be three and one-tenth miles long; contract price, \$53,776. Plans and specifications are to be reported on by an engineer employed by the city.

#### MACHINERY, PROPOSALS AND SUPPLIES WANTED.

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find us what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.**

**Acetylene Plant.**—Light Committee, Williamsburg, Va., will receive bids until February 25 for acetylene-lighting plant, according to plans and specifications to be seen and had from lighting committee; all bidders to accompany bids with detail drawings of generator, their construction as well as their method of installing the complete outfit. Certified check for \$500 must accompany each bid; usual rights reserved. For further information address J. H. Seymour, chairman of light committee.

**Boilers.**—See "Engines and Boilers."

**Box Machinery.**—W. F. Bynum, Lock Box 393, Richmond, Va., wants machinery for making lock-corner boxes.

**Box-strapping Machines.**—Geo. O. Pritchard, Greenville, N. C., wants addresses of manufacturers of box strapping suitable for smoking-tobacco cases.

**Brick Machinery.**—Paul J. Robertson, Mt. Vernon, Texas, wants estimates on installation of brick plant.

**Bridge Construction.**—Park Commissioners, Kansas City, Mo., will receive bids until February 25 for constructing reinforced-concrete continuous-girder bridge across Brush creek. Alternate bids are also asked for constructing reinforced-concrete bridge on designs furnished by contractors; Frank P. Gossard, secretary.

**Bridge Construction.**—Contract will be let March 20 for steel wagon bridge of two spans of 80 feet each with capacity up to 25,000 pounds. Plans and specifications can be had on application to T. W. Boyd, Supervisor York County, Yorkville, S. C.

**Building Materials.**—W. & F. P. Mellinger, 16 North Center street, Cumberland, Md., want prices on Materials for the construction of theater.

**Building Materials.**—Diehl Supply Co., Jonesboro, Tenn., is in the market for plain and fancy doors, sash, blinds, flooring, ceiling, siding, building paper, tar paper, steel roofing, concrete blocks, laths, galvanized guttering, wire fencing, moldings, casings, pales (pickets), hand rails, steps, risers, balusters, shingles (pine, red cedar and cypress), oxide of iron, linseed oil, floor oil, butts, screws and nails.

**Building Materials.**—J. M. Hopper, Leakville, N. C., wants No. 2 pine shingles and

finishing lumber for tenement-houses. Quote delivered price.

**Candy Machinery.**—Magnolia Canning & Manufacturing Co., Chas. L. Rushing, president, Meridian, Miss., wants machinery for manufacturing stick candy.

**Canning Equipment.**—Estill County Canning Co., Irvine, Ky., wants machinery for cannery factory.

**Cement-block Factory.**—Monolithic Double Wall Co., Williamson, W. Va., wants complete equipment of machinery and supplies for cement-block factory.

**Collar-pad Machinery.**—Machinery wanted for making collar pads for horses and mules. Give description, prices and capacity to Columbus Board of Trade, Columbus, Ga.

**Contractors' Equipment.**—Talladega Construction Co., P. S. Plowman, president, Talladega, Ala., wants 20 K. & J. six-yard dump cars.

**Curtain Poles.**—Mrs. J. P. Broadstreet, Grenada, Miss., wants addresses of curtain-pole manufacturers, both wood and metal.

**Dumb-waiter.**—J. H. Casey, Anderson, S. C., wants bids on dumb-waiter.

**Electric-light Plant.**—Clifton Forge, Va., will let franchise March 4 for installation of electric-light plant for a town of between 5500 and 6000 population; certified check for \$2000 to accompany each bid. For further information address J. A. Gleason, chairman Water and Light Committee, Clifton Forge, Va.

**Electric-light Plant, etc.**—S. H. Newell, Sr., City Clerk, Holton, Kan., will open bids March 5 for equipping and installing combined electric-light and water-works plant with water-distributing system; plans, specifications and instructions to bidders on file at office of City Clerk and at office of W. K. Palmer Company, consulting engineer, 713 Dwight Building, Kansas City, Mo. Proposals to cover following: Section A—Brick power-house; B—Electrical-power equipment; C—Steam-power equipment; D—Water-works pumping equipment; E—Station piping, valves, covering and breeching; F—cast-iron pipe and special castings; G—Hub and valves and fire hydrants; H—Surface reservoir and well; I—Erecting powerhouse equipment; J—Laying water mains and setting hydrants. Prospective bidders invited to confer with engineer.

**Electric Lighting.**—W. & F. P. Mellinger, 16 North Center street, Cumberland, Md., want prices on electric lighting theater.

**Electric Motor.**—Rives-Rucker Grocery Co., Martinsville, Va., wants 15 to 20-horse-power electric motor.

**Electric Plant.**—Montague Manufacturing Co., J. L. Phippin, secretary, 9th and Arch streets, Richmond, Va., wants plans and estimates and machinery for development of water-power and its transmission by electricity to individual motors for sash, door and blind factory.

**Electric Wiring.**—See Building Note under Houston, Texas.

**Electrical Equipment.**—Carolina Paper Pulp Co., Newbern, N. C., wants price on a 75 to 100-light dynamo and outfit complete; new or second-hand.

**Electrical Equipment.**—Eugene L. Richter, 1914 Columbia avenue, Philadelphia, Pa., wants a 100-kilowatt 60-cycle alternator; three-phase preferred. State make, speed and other particulars.

**Electrical Equipment.**—Rhode Island Company of Spray, N. C., wants a second-hand generator, alternating current, 200 kilowatts or thereabouts, three-phase, 60-cycle, wound for 440 to 550 volts, with high-speed engine to drive same; plant complete with switchboard to be used for lighting and power service. Quote lowest price delivered.

**Electrical Equipment.**—Shallow Water Steam Laundry Co., P. O. Box 35, Plainview, Texas, want dynamo.

**Electrical Equipment.**—Columbus School Desk Co., Columbus, Ga., wants prices on individual direct motors.

**Elevator.**—J. H. Casey, Anderson, S. C., wants bids on elevator.

**Engine.**—Rhode Island Company, Spray, N. C., wants high-speed engine to drive 200-kilowatt generator. (See "Electrical Equipment.")

**Engine and Boiler.**—Clarksburg Casket Co., Clarksburg, W. Va., wants a 45 or 60-horse-power steam engine, with boiler.

**Engine, Pipe and Fittings, etc.**—Bids will be received at office of D. W. Ross, General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until March 1 for tandem compound engine, lathe, iron pipe and fittings, valves, cocks, engine governor, steam and water gauges, water column bodies, boiler lubricators, twist drills, solder, pig lead, phosphor tin, angle steel, sand-

paper, dowelpins, graphite paint, rubber bath curtains, tracing cloth, blueprint paper, etc. Blanks and general information relating to this circular (No. 352) may be obtained from office of General Purchasing Officer or office of assistant purchasing agents, 24 State street, New York; Customhouse, New Orleans; 1086 North Point street, San Francisco, and 410 Chamber of Commerce Building, Tacoma, Wash.; also from Chief Quartermaster, Chicago; Depot Quartermaster, St. Louis; Depot Quartermaster, Jeffersonville, Ind., and Chief Quartermaster, Atlanta, Ga.

**Engineering Literature.**—J. A. Holmboe, the Holmboe Company, consulting and contracting engineer, Louisville, Ky., wants engineering literature, catalogues, etc.

**Engineers.**—See "Electric Plant."

**Engines and Boilers.**—R. E. Goodwin, Pickens, S. C., wants prices on engines and boilers; about 40 horse-power.

**Engines and Boilers.**—Catawba Valley Railway & Mining Co., Edw. S. Barnitz, general manager, Salem, Va., wants prices on engines and boilers.

**Engines and Boilers.**—Dixie Hardware & Furniture Co., Ltd., Gibsland, La., wants agencies for engines and boilers.

**Engines and Boilers.**—See "Water-works."

**Evaporators.**—See "Sugar Machinery."

**Flywheel.**—Savannah Locomotive Works & Supply Co., Savannah, Ga., wants second-hand flywheel, 10 to 12 feet in diameter, 20 to 30-inch face, bored to fit shaft 7 13-16 inches.

**Forgings.**—Aden Axle Lubricating Co., Joseph Aden, secretary, Greensboro, N. C., wants to purchase drop forgings.

**Forgings, etc.**—W. P. Smith, Rogersville, Tenn., wants addresses of manufacturers of drop forgings, cant hooks, etc.

**Foundry Equipment.**—Wytheville Iron Works, Wytheville, Va., wants prices on foundry equipment.

**Gas Piping.**—See Building Note under Houston, Texas.

**Glass-plant Supplies.**—Catawba Valley Railway & Mining Co., Edw. S. Barnitz, general manager, Salem, Va., wants prices on glass-plant supplies.

**Grinding Machinery.**—J. Caples Mallonee, Box 306, Savannah, Ga., wants machinery for grinding manganese ore.

**Hardware.**—Hartsville Wood Manufacturing Co., Hartsville, S. C., wants hardware for doors.

**Heading Machinery.**—Wergman & Co., Wilmington, N. C., wants a full set of machinery for making barrel heading.

**Heater.**—See "Water-works."

**Heating.**—See Building Note under Houston, Texas.

**Heating Apparatus.**—See "Plumbing and Heating."

**Heating Apparatus.**—W. & F. P. Mellinger, 16 North Center street, Cumberland, Md., want prices on blower-system heating plant.

**Heating Apparatus.**—J. H. Casey, Anderson, S. C., wants bids on heating apparatus for hospital.

**Horse-collar Machinery.**—Machinery wanted for making horse collars. Give description, prices and capacity to Columbus Board of Trade, Columbus, Ga.

**Hospital Equipment.**—J. H. Casey, Anderson, S. C., wants bids on sanitary floors, operating-room equipment, sterilizers, etc., for hospital.

**Hydraulic Ram.**—S. J. Durham, Bessemer City, N. C., wants a hydraulic ram.

**Ice Machinery.**—Clarence Linder, Hartwell, Ga., wants addresses of manufacturers of ice machinery.

**Laundry Machinery.**—Clarence Linder, Hartwell, Ga., wants addresses of manufacturers of laundry machinery.

**Limekiln.**—E. S. Kiracofe, Ottobine, Va., wants a wood-burning steel limekiln with capacity of 40 bushels.

**Lime-kiln.**—Chas. W. Priddy & Co., Inc., J. T. Maddrey, secretary, Norfolk, Va., want addresses of rock lime-kiln operators (preferably Virginia and North Carolina).

**Looms.**—A. S. Dukes, Branchville, S. C., wants machinery for weaving and manufacturing towels.

**Machine Tools.**—Floyd Coss, Lamberts Point, Va., wants addresses of manufacturers of punches and shears for working galvanized iron, gauge 26, also hollow or tubular rivets.

**Machine Tools.**—J. B. Vuncanon, West End, N. C., wants lathes, milling machine, drills, forges, shears, special rolled steel, blank castings, worm gear, etc.

**Machine Tools.**—Beauchamp Bros. Machine Co., 624 Marietta street, Atlanta, Ga., wants

prices on engine lathe, 40-inch swing, 15 feet between center, hollow spindle.

Machine Tools.—Wytheville Iron Works, Wytheville, Va., wants prices on machine-tools.

Machinery.—Dixie Hardware & Furniture Co., Ltd., Gibsland, La., wants agencies for machinery.

Mica Machinery.—See "Mining Equipment."

Mill Supplies.—Dixie Hardware & Furniture Co., Ltd., Gibsland, La., wants agencies for mill supplies.

Mill Work.—Bids will be received at office of constructing officer, United States Soldiers' Home, Washington, D. C., until March 4 for furnishing and delivering the window and door frames, and furnishing, delivering, installing, painting and finishing all other mill work and joinery (including mill work and joinery for 785 window and door openings, all baseboard, chair, rail, shelving, stair, handrail, etc.) for new mess hall and dormitory building United States Soldiers' Home, Washington, D. C.; information on application; deposit of \$50 required for drawings and specifications; John Stephen Sewell, captain engineers, constructing officer.

Milling Machine.—Kosciusko Oil Mill and Fertilizer Co., Kosciusko, Miss., wants a good second-hand milling machine.

Mining Equipment.—Geo. K. Cooper, Son-tag, Va., wants prices on patent clippers, punches, splitters and complete equipment for mining mica and kaolin.

Navy Supplies.—Bids will be received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until March 5 for furnishing at navy-yard and naval observatory naval supplies as follows: Sch. 418, boat and deck clocks, stop watches, psychrometers, clinometers, thermometers, dividers, etc.; Sch. 419, asphalt, roofing tar and gravel, muslin, saws, calipers, emery cloth, nickel-steel chain, silent chain drive, recoil springs, etc.; hardware and tools, steel forging, rubber gaskets, oil of vitriol, paints, asphaltum, varnish, linseed oil, chemicals, brass and steel tubes, stoneware jars, fittings for nitrile-acid system, felt wads, etc.; Winchester shells. Applications for proposals should designate the schedules desired by number; blank proposals furnished on application to bureau; E. B. Rogers, paymaster general, United States Navy.

Overall Machinery.—Barrett & Waters, Kinston, N. C., wants information regarding machinery for the manufacture of overalls.

Overall Machinery.—See "Sewing Machines."

Paving.—The Baltimore (Md.) Board of Awards, City Hall, will receive bids until February 27 to grade, curb, gutter and pave with asphalt blocks, sheet asphalt, vitrified brick or bitulithic portions of Madison avenue, Druid Hill avenue and Park terrace. Specifications and proposal sheets may be obtained from the Commissioners for Opening Streets, J. Arthur Wickham, president, Hoen Building, Lexington and Holliday streets.

Paving.—City of Valdosta, Ga., will receive bids until March 1 for laying 5500 yards vitrified brick and 2000 yards cement sidewalks. J. J. Newman is City Clerk.

Paving.—City Clerk, Austin, Texas, will receive bids until March 1 for paving Congress avenue with vitrified brick from Third street to Colorado river bridge (about 8000 square yards) and such other streets as City Council may designate for a period of one year from date of signing contract; specifications may be obtained by applying to C. E. Leonard, city engineer; certified check covering 10 per cent. of bid must accompany each proposal; usual rights reserved. A. C. Goeth is chairman of street committee.

Piping and Fittings.—Oyanguern y Guevara, Bilbao, Spain, wants to correspond with manufacturers of wrought-iron pipes and fittings, files, brass cocks and saw blades.

Planing Mill.—R. E. Goodwin, Pickens, S. C., wants prices on new and second-hand planing mill.

Plumbing.—Bids will be opened March 20 for remodeling plumbing at Government Hospital for Insane. Drawings and specifications can be had on application to Department of the Interior, Washington, D. C.

Plumbing.—See Building Note under Houston, Texas.

Plumbing and Heating.—Wm. M. Kavanaugh, chairman Committee on New Buildings, Little Rock, Ark., will receive bids until February 21 for plumbing and heating at the West End school. Plans may be seen at office of Gibb & Sanders, architects; bids on two items to be separate; usual rights reserved.

Plumbing Fixtures.—Bids will be received

at office of B. A. Beeson, treasurer, Southern Branch, N. H. D. V. S., National Soldiers' Home, Elizabeth City county, Virginia, for furnishing material and labor for removing old and furnishing and installing new plumbing fixtures in buildings Nos. 46, 47, 51 and 55 (barracks of Companies E, M, N and O), in accordance with instructions and specifications, copies of which, with blank proposals and other information, may be had on application to treasurer.

Power Plant.—See "Electric Plant."

Pump.—Athens Hosiery Mills, Athens, Tenn., wants 750-gallon-per-minute fire underwriters pump.

Pump.—O. R. Whitney, 39 Cortlandt street, New York, wants for immediate delivery one 2,500,000 or 3,000,000 gallon water-works pump.

Pumps.—George A. Morris, Jr., Rapides Hotel, Alexandria, La., wants pumps.

Railway Equipment.—C. P. Young Engineering & Supply Co., 406 Camp street, New Orleans, La., wants 60 second-class standard gauge flat cars.

Railway Equipment.—Talladega Construction Co., T. S. Plowman, president, Talladega, Ala., wants a 50-ton locomotive.

Railway Equipment.—General Engineering & Supply Co., Inc., Colorado Building, Washington, D. C., wants 30 to 50-pound relaying rails.

Railway Equipment.—Bason Equipment Co., M. R. Bacon, president, Albany, Ga., wants 12 to 20 pound relaying rails.

Road Building.—Calhorne County Highway Commissioners, W. N. Day, chairman, Lone Mountain, Tenn., will receive bids until February 23 for constructing a county highway extending from Lone Mountain to Springdale, a distance of four and one-half miles. For further information address L. G. Payne, secretary, Lone Mountain, or Moreland & Moles, engineers, Scrugge Building, Knoxville, Tenn., where profiles and specifications can be seen.

Road Machinery.—John McDyer, Catlettsburg, Ky., wants a 10-ton steam road roller.

Sanitary Floors.—See "Hospital Equipment."

Saws.—Oyanguern y Guevara, Bilbao, Spain, wants to correspond with manufacturers of saw blades.

Sawmill Equipment.—Beauvais Lumber Co., Ltd., Morganza, La., wants one No. 2½ regular right-hand circular-saw mill complete (except saw), with extension mandrel and back and pinion feed, with improved belt and friction feed works; two-head blocks, No. 3 double steel, beam opening 48 inches, with return springs and 20-pound rails and splices for track; Knight medium single dog; one Gem gang edger, No. 2; one lumber trimmer, to trim from 6 to 16 feet; one under-cut frame and countershaft for slab saw, size B; one overhead log turner, one power friction log hauler, four axles and eight 18-inch wheels for lumber cars, bolts and boxing.

School Furniture and Fixtures.—City of Moss Point, Miss., will purchase about \$3000 worth of furniture and fixtures for school building, including school desks, etc. A. H. Smith is Mayor.

Screen Wire.—Hartsville Wood Manufacturing Co., Hartsville, S. C., wants addresses of manufacturers of screen wire (green, galvanized and copper).

Seating.—See "Theater Equipment."

Seating.—See "School Furniture and Fixtures."

Sewerage.—Bids will be opened at office of Henry B. Ware, secretary State Board of Capitol Commissioners, Frankfort, Ky., February 25, for building two pipe sewers for Kentucky State Capitol Building, now in course of erection, in accordance with drawings and specifications prepared by Frank M. Andrews; certified check for 10 per cent. of amount of bid must accompany each proposal, payable to secretary; necessary information, plans, specifications and proposal blanks will be furnished by architect, 25 East 3d street, Cincinnati, Ohio, or Henry B. Ware, secretary, Frankfort, Ky.

Sewerage System.—Bids marked "Proposals for Constructing Sewer" and addressed to John Q. Wolf, secretary Board of Commissioners, Batesville, Ark., will be opened March 5 for constructing sewer system in sewer district No. 1; certified check for 5 per cent. of bid must accompany each proposal, payable to order of secretary; plans and specifications on file at office of secretary at Bank of Batesville; usual rights reserved; approximate cost of work, \$13,000.

Sewerage System.—Bids will be received at office of Henry B. F. Macfarland, Henry L. West and John Biddle, Commissioners, Washington, D. C., until March 4 for constructing

junction section of trunk sewers. Forms, specifications and necessary information may be obtained at Room 43 District Building, Washington, D. C.

Sewing Machines.—Clarence Clapp, China Grove, N. C., wants machinery for making overalls and trousers.

Sewing Machines.—See "Overall Machinery."

Steam Shovels.—General Engineering & Supply Co., Colorado Building, Washington, D. C., wants to purchase style C Marion steam shovels and type C Shew steam shovels.

Steam Shovels.—C. P. Young Engineering & Supply Co., 406 Camp street, New Orleans, La., wants two steam shovels; capacity, one and one-half tons each.

Steel Work.—Board of Supervisors of Claiborne county will receive bids to be opened March 4 to line two rooms of the county jail with steel according to plans and specifications now on file with the Chancery Clerk; usual rights reserved; R. C. McCay, clerk, Port Gibson, Miss.

Sterilizers.—See "Hospital Equipment."

Sugar Machinery.—R. W. Estes, secretary Como Canning Co., Como, Miss., wants addresses of manufacturers of sorghum cane mills and steam evaporators for same.

Surgical Instruments.—See "Hospital Supplies."

Tank.—Carolina Paper Pulp Co., Newbern, N. C., wants one wooden water tank of about 20,000 gallons capacity.

Tank and Tower.—See "Water-works."

Tank and Tower.—Stroud, O. T., J. P. Freshour, town clerk, wants estimates on tank and tower or stand pipe; capacity about 75,000 gallons.

Tanks.—George A. Morris, Jr., Rapides Hotel, Alexandria, La., wants prices on steel tanks.

Tanks.—Minge Land & Investment Co., Faunsdale, Ala., wants addresses of manufacturers of wood and iron water tanks.

Textile Machinery.—W. G. Jarrell Machine Co., 26 West 4th street, Charlotte, N. C., wants small blower, about 18 inches, with five or six-inch pipe; spinning frames, 2½-inch gauge, 22 spindles to frame (Whitton preferred); baby washing machine, suitable for washing cotton; waste machine for tearing up cardroom and spinning-room soft waste and putting into condition to mix with cotton; all second-hand in good condition.

Theater Equipment.—W. & F. P. Mellinger, 16 North Center street, Cumberland, Md., want prices on equipment for theater.

Theater Equipment.—Carl Grau, Taylor, Texas, wants 1000 opera chairs and scenery.

Trouser Machinery.—See "Sewing Machines."

Viaduct.—Board of Public Works, Louisville, Ky., will let contract March 1 for constructing Oak-street viaduct; cost \$100,000. Joseph P. Clybrook is City Engineer.

Water Meters.—City of Apalachicola, Fla., wants water meters. Address H. W. Morgan, City Engineer.

Wants School Seating.—About July seating will be wanted for \$64,000 school building at Jacksonville, Fla. Address W. B. Camp, the architect.

Barber Shop Fixtures.

The W. D. Coggehall Company, Darlington, S. C., wants barber shop fixtures.

Sand for Concrete Work.

Mr. D. G. Adelsberger, hydraulic engineer, 722 Pennsylvania avenue, Baltimore, Md., wants to correspond with parties furnishing clean sharp sand by the carload for concrete work.

Wants School Seating.

About July seating will be wanted for \$64,000 school building at Jacksonville, Fla. Address W. B. Camp, the architect.

Texns Fruit and Rice Lands.

Rice lands in Jefferson county, Texas, on the Southern Pacific Railroad, containing 646 acres, and fruit lands in Smith county, on the Cotton Belt Railroad, containing 1234 acres, are for sale. Address H. C. Schwaner, Box 377, Beaumont, Texas.

Missouri Limestone Quarry Offered.

A limestone quarry in Southwestern Missouri, stripped and ready for channeling, and located on the K. C. C. & S. Railway, is offered for sale. Connected with the quarry is a lime-kiln of 400 bushels daily capacity. Address B. F. Threewitt, Denver, Col.

A Selden-Breck Contract.

The Selden-Breck Construction Co., Fuller-ton Building, St. Louis, Mo., secured recently the contract for the erection of the four-story building for the Commercial-Appeal of Memphis. This will be a modern newspaper structure, thoroughly fireproof throughout. The company has a branch office in Memphis and another in Louisville.

Planning a Power Plant.

The Royal Motor Car Co. of Cleveland, Ohio, is providing for a power plant, in addition to the other buildings, to serve its new factory. As soon as its advisory engineers, Messrs. Dodge & Day of Philadelphia, have decided on the nature and amount of power required the details of the building will be determined upon.

## INDUSTRIAL NEWS OF INTEREST

### Southern Land Purchasable.

A number of improved farms and timber lands in Mississippi and coal lands in Tennessee can be purchased. Address W. H. Kennon, Jackson, Miss.

### Cotton Mill on the Market.

A cotton mill of 300 spindles, making yarns from 6s to 20s, is offered for sale on account of failing health of owner. Address Southern Securities & Trust Co., Gastonia, N. C.

### Wooden Supplies for Textile Mills.

A well-equipped plant for manufacturing wooden supplies for textile mills and located in a timbered section of North Carolina is offered for sale. Address North Carolina, care of Manufacturers' Record.

### Addition to Firm of Dodge & Day.

Dodge & Day, engineers, Drexel Building, Philadelphia, Pa., announce that John E. Timmerman, formerly secretary of the American Pulley Co., Philadelphia, has been admitted as a partner in the firm.

### Contract to Lay Piping.

The Sewerage and Water Board of New Orleans, La., has awarded contract to lay 13,000 tons of cast-iron pipe in that city to the General Contracting Co. of Atlanta, Ga., for the sum of \$419,527.50. This is a large contract and indicates the facilities the General Contracting Co. has available.

**Structural Iron and Steel.**

Keeping his working crew up to its limit and keeping the men constantly at it, making immediate shipments from a complete stock, is the record of Thatcher A. Parker, 202 North 1st street, Terre Haute, Ind. Mr. Parker deals in structural iron and steel, and anything of this sort required in a building he can supply at once.

**To Build \$700,000 Ship.**

The Newport News (Va.) Shipbuilding & Dry-Dock Co. has received contract from the Mattson Steam Navigation Co. of San Francisco for the construction of a freight and passenger steamer to cost about \$700,000. The ship will be 450 feet long, with a beam of 54 feet and a depth of 30 feet. She will ply between Honolulu and San Francisco.

**Buckeye Lamps in the South.**

The Buckeye Electric Co., manufacturer of incandescent lamps, Cleveland, Ohio, will actively solicit business among mill operators and central power stations in the South, and in this connection has engaged Mr. Paul R. Slocomb, Fayetteville, N. C., as Southern representative. North and South Carolina and Georgia will be especially covered.

**A Good Steaming Boiler.**

Mr. C. H. Smith, dealer in North Carolina long-leaf yellow pine, Sanford, N. C., in writing to J. S. Schofield's Sons Company, Macon, Ga., from which he purchased a boiler, said that it was the best steaming boiler he had ever seen, and was satisfactory in every way. The Schofield Company deals in engines, boilers and other machinery and equipment.

**Finances Southern Water-Powers.**

Owners of available water-powers which they wish to have developed or financed and reports, estimates or designs made concerning them can obtain this service from Arthur Giesler, consulting engineer, 29 Broadway, New York. He is also in a position to negotiate for the sale of securities and water-powers, and has constantly on hand a number of Southern water-power securities.

**Mr. Arthur H. Allen With Gilbreth.**

Mr. Arthur H. Allen, formerly a member of the contracting firm of H. B. Cummings & Co. of Boston, Mass., and more recently in business for himself, is now doing extensive work as part of the organization of Frank B. Gilbreth, contractor, of New York. Mr. Allen, with the larger part of his own organization, left Boston February 10 for San Francisco, where he will join Mr. Gilbreth's Western office.

**Fred J. Meyers News.**

The Fred J. Meyers Manufacturing Co., Hamilton, Ohio, is busily engaged at present. Mr. Geo. C. Bramlage says that practically the entire range of architectural wire and iron work has been covered in the company's recent orders. These called for bank and office fixtures, elevator enclosures, grilles and all the multitudinous devices that enter into interior fittings in the various kinds and sorts of metals.

**Time for Painting.**

In the spring a man's fancy turns to thoughts of rettling and repairs. It is a favorable time of year for painting. The Blitz Paint & Varnish Co. of Louisville, Ky., has prepared a color card that every paint man and every man who may use paint should have. It shows some of the favorite shades of the Bluegrass paints, though, of course, the company is prepared to furnish any color or shade desired outside of its regular stock.

**J. A. Holmboe Forms New Company.**

Mr. J. A. Holmboe, formerly vice-president and chief engineer of the Sned Architecture Iron Works of Louisville, Ky., has sold his interests in that company and has formed the Holmboe Company, with offices in Louisville, Ky. The company will act as consulting and contracting engineers for steel and reinforced concrete work, including viaducts, highway bridges and all kinds of heavy structures. Catalogues pertaining to its line are requested.

**Big Shipment of Sulphur.**

A dispatch from Brimstone, La., says a record shipment of sulphur commenced there last week. It consists of 19,000 tons, and 40 cars will be used each day in handling this big shipment. It is being forwarded to New Orleans via the Southern Pacific. As soon as the tracks of the Sabine & East Texas Railroad are in full working order the export movement of the sulphur will begin through that port, shipments to be made by the Union Sulphur Works. The greater part of the sulphur is for European ports.

**News of Weir Frog Co.**

The Weir Frog Co., Norwood, Cincinnati, Ohio, has experienced a busy winter season. Mr. W. W. Allen, speaking recently of the situation, said that a large amount of the company's business had been coming from the Southern States, where the short winter season made it possible to continue work longer and to begin sooner than in those sections affected by snow and ice. As a whole, the last year proved very satisfactory to the Weir Frog Co.

**Nashville Hardwood Floor Souvenir.**

The Nashville Hardwood Flooring Co., Nashville, Tenn., is distributing among its friends a useful souvenir, consisting of an aluminum ash tray containing a design of an oak leaf and three acorns inscribed "Price," "Quality" and "Service," the three items which have contributed to the company's success. This company is the manufacturer of the "Acorn" brand of oak and beech flooring, and gives special attention to beech flooring for cotton mills.

**American Block Machines in Egypt.**

It is said concrete is the favorite building material in Cairo, Egypt. The Century Cement Machine Co. of Rochester, N. Y., has just shipped six Hercules cement-block machines to one contractor in that distant city. This is the second order from the same contractor, as he has been operating four Hercules machines for two years. It is understood that the last shipment is to be used in making concrete blocks for an elaborate public building of great architectural beauty.

**Street-Lighting Franchise for Sale.**

The Water and Light Committee, J. A. Gleason, chairman, Clifton Forge, Va., offers for sale by proposals, to be received until March 4, a franchise granting permission for the construction, maintenance and operation of an electric-lighting system for a period of 15 years. Clifton Forge has a population of nearly 6000, with 75 business houses, all of which use electric lights, and between 35 and 40 per cent. of the residents are electric-light users. Additional information will be furnished on request.

**South Carolina Timber and Farm Lands.**

Attention of capitalists and investors is called to 7660 acres of farm and timber land offered for sale in South Carolina, situated on Congaree river seven miles from Columbia and convenient to railroad and water transportation. The property includes 4200 acres of timber, estimated to contain 51,215,000 feet of various kinds; balance in fertile farm lands; also contains large supply of brick and tiling clay. Address John C. Seegers, Columbia, S. C.

**Some Dodge & Day Work.**

The Royal Motor Car Co., Cleveland, Ohio, has retained Dodge & Day of Philadelphia as advisory engineers for new plant. The plans are well under way and work will be started immediately. Messrs. Dodge & Day have also been commissioned by the Denison Manufacturing Co., South Framingham, Mass., to make a report on the power requirements of the Denison factory. This investigation has been made necessary by rapid growth of business, and will determine how great an increase should be made to the present power-house.

**A Difficult Well-Drilling Job.**

After several others had abandoned efforts to drill a well at Tifton, Ga., the Hughes Specialty Well-Drilling Co., Charleston, S. C., has successfully accomplished the work after working on it since May, 1906, and the loss of considerable money in the attempt. The well as completed is 500 feet deep and gives a supply of 500 gallons of water a minute, and the city officials were especially pleased with the result. The determination of the company to finish the well even at a pecuniary loss is a strong recommendation that it will carry out all contracts undertaken.

**Opportunity for Timber Operators.**

Timber operators who can furnish mills and log, saw, handle, sell and collect the product are offered an opportunity to associate with the owner of property estimated to contain about 200,000,000 feet of timber, principally pine and cypress, but also containing oak, ash, cottonwood, gum, etc. The property is all located on a large navigable river, and extends along its shores for about 16 miles and runs back not more than two and one-half miles. The mill site, which is five miles below the timber, is also on the river and a railroad line. The owner will furnish the stumpage, the operator to do the logging, sawing, etc., and the proceeds over this work will be divided. Further information can be obtained by addressing "Attractive Proposition," care of Manufacturers' Record.

and idlers, which have for so long been a source of trouble. The company has issued a little pamphlet illustrating its cotton gins and other farming machinery and also giving a number of testimonials from people who are using Gant agricultural implements with success.

**Annual Report of Chicago Pneumatic Tool Co.**

The fifth annual report of President J. W. Duntley to the shareholders of the Chicago Pneumatic Tool Co., Fisher Building, Chicago, Ill., shows that company to be in a healthy and prosperous condition. The net earnings for the year were \$686,468, from which a 4 per cent. dividend was allowed, and the balance carried to the surplus fund, which now amounts to \$878,409. The excess current assets of \$1,542,075 on December 31, 1906, show an increase of over \$883,000 since the company was organized five years ago.

**Dust Exhaust Systems in Foreign Lands.**

The dust-exhaust systems as manufactured by the Cincinnati Exhaust & Blow Pipe Co., 324-330 West 3d street, Cincinnati, Ohio, are meeting with much success in foreign lands, and shipments of these systems are constantly being made to cities of Europe and South America. The company's business in this country is also showing continuous growth, and one of the recent orders received was for a double system for the State penitentiary at Frankfort, Ky., where it is to be operated by Hoge-Montgomery Company, manufacturer of shoes, under contract.

**Hayward Digging Machinery.**

Contractors and managers of industrial plants generally will find much of interest and profit in a little pamphlet which the Hayward Company, 97 Cedar street, New York, has issued for their benefit. This company manufactures dredges, skid excavators, derrick fixtures, railroad excavators, steel traveling derricks, coal-hauling machinery and orange-peel and clamshell buckets. This machinery is shown in active operation and the details of each machine explained. If you have any contracts calling for excavating or dredging, it can be facilitated by investigating the Hayward products, further details of which will be sent upon request.

**"Standard" Oscillating Electric Fans.**

Leaving well enough alone, when that "well enough" represents a high-grade mechanism that has stood severe tests, is the belief of the Robbins & Myers Co., Springfield, Ohio. Therefore the 1907 line of "Standard" desk and ceiling fans makes no appearance with claims of new and wonderful improvements. The fans have proven themselves to maker and user alike, and stand today as a high type of the manufacturer's skill. There have been some minor things done to the oscillating device, strictly along mechanical lines, which have made that valuable adjunct more to be desired than ever. It is possible now to throw a cooling breeze into all parts of the room from an oscillating desk fan and do it positively and continuously when desired.

**New Chase-Shawmut Electrical Devices.**

Two useful and simple devices for electric plants have recently been perfected by the Chase-Shawmut Company, Newburyport, Mass. One of these is an extended terminal fuse, which overcomes the carrying in stock of a large number of fuses of various lengths, as it is so made that it can be fitted to any base, this being accomplished by having on one end an extended terminal of soft copper, which can be cut off to the desired length. The other device is the Shawmut all-copper ground connection clamp to be used in central stations which ground their secondary distributing systems. When installed it is locked so as to give a maximum contact, and is simple in construction and requires only a pair of pliers to install quickly and properly. Neat little folders have been issued illustrating and explaining the merits of the devices.

**TRADE LITERATURE.****Opportunities at Batesville, Ark.**

Business men and manufacturers who are considering the changing of their locations will find good facilities, such as power and transportation, at Batesville, Ark. This city also has the conveniences of modern cities. There are a number of industrial openings available at present, and the Batesville Board of Trade, of which M. C. Weaver is president, will co-operate with any parties desiring to locate.

**The "Gant" Geared Cotton Gin.**

After tedious and repeated experiments the Gant Manufacturing Co., Macon, Ga., manufacturer of agricultural implements, has perfected and attached to the Gant gin a noiseless gear which does away with belts

and idlers, which have for so long been a source of trouble. The company has issued a little pamphlet illustrating its cotton gins and other farming machinery and also giving a number of testimonials from people who are using Gant agricultural implements with success.

**Economical Cottonseed-Oil Separators**

For the purpose of getting in touch privately with customers and prospective customers in the South, W. E. Copenhaver, secretary of the Foss Manufacturing Co., Springfield, Ohio, has recently made two extensive campaigns, with a third in prospect, and each with a definite objective point. One of the successes of this company is the introduction of some new separating machinery for cottonseed-oil mills that provides for a smaller loss of meats in the process of separation. These machines are illustrated and described in a new catalogue soon to be issued, copies of which may be had on request.

**New York at Night.**

Many people who have never been in New York at night have often wondered what it must be like, and although they have doubtless read descriptions of its appearance at that time, these at the best fail to convey a correct picture to their mind. Unable to bring their thousands of customers to New York to see it for themselves, Messrs. Chas. Schieren & Co., manufacturers of leather belting, New York, are sending that great city at night to them. This they have accomplished by a booklet containing 12 illustrations of the most prominent sections of the city. These photographs were all taken at night, and so well have they brought out the views that if the mind is allowed to dwell upon them it can be easily imagined that one is actually in New York.

**Rand Rock Drills.**

In issuing its catalogue for 1907 covering the various Rand rock drills, the Ingersoll-Rand Co., 11 Broadway, New York, has found it necessary to so subdivide its catalogue data that the company's several lines of apparatus will each receive adequate treatment. Rand drills are here fully described in all their details, and full information is given as to sizes, capacities and other desired particulars, including prices. The various drill mountings and appurtenances are described and full lists of all repair parts are given, so that everything pertaining to the proper maintenance of the drills may be ordered as required without delay. Some of the other products of the company are briefly mentioned, and a list is given of the great variety of literature now issued by this company, any of which will be forwarded on request.

**"A B C" Vertical Engines.**

Feeling that there is a wide field for the use of small high-speed engines that would give satisfaction to the purchaser and not be a continual source of constant attention, frequent adjustment and numerous repairs, the American Blower Co., Detroit, Mich., has produced a line of these engines. These engines are known as the "A B C" type "A" and type "E." They are vertical, enclosed and self-oiling and combine graceful lines, a novel oiling system and are of the best materials, properly proportioned, finely finished and perfectly fitted. Type "A" is a single-cylinder low-pressure engine, while type "E" is a double-cylinder high-pressure engine. An especially fine catalogue of more than ordinary typographical and illustrative work has been issued by the company covering these engines. Each type of engine is illustrated and thoroughly described as to details of construction, adaptability and economy. They are particularly recommended for driving blowers, operating bucket elevators, screw conveyors, hoisting apparatus, cylinder driers, laundry machinery or for any use that a good, dependable engine is required. This catalogue is known as No. 206 and can be obtained upon application.

**Morrison Bros. Products in Mississippi.**

Mississippi has made great strides in recent years in developing its resources along all lines, in improving municipal conditions, in the construction of steam and electric railways and in the construction of modern buildings of every character. That modern and improved materials were used in this work is evidenced in an especially fine catalogue which has been issued by Morrison Bros., Jackson, Miss., showing some of the finest buildings erected in the State. Most of the materials entering in the construction of these buildings were furnished by this firm, who are agents for the Atlas Portland Cement Co., 30 Broad street, New York; Longview Lime Works, Longview, Ala.; Hy-

draulic Press Brick Co., St. Louis, Mo.; Laclede Fire Brick Manufacturing Co., St. Louis, Mo., and the Acme Cement Plaster Co., St. Louis, Mo. Several street scenes in important cities are also shown where these products were used in the construction of sewers and the paving of streets and sidewalks. This firm are also miners and shippers of bituminous and anthracite coal and have mines in the Kentucky and Alabama coal fields. Their coal is being used on the principal railroads in the State and in a number of important industrial plants, several of which are shown in the catalogue. The business of Morrison Bros. extends over all parts of the State.

#### Modern Fertilizer Machinery.

Farmers of the South have realized that greater crops result from the use of fertilizer, and they are using more and more of it every year. The demand thus created has kept all of the fertilizer manufacturers busy, but many of them are prevented from getting their full share of the business by not being able, on account of old or obsolete machinery, to compete properly with others who have been more progressive. In this age of wonderful mechanical perfection, fertilizer machinery has received as much attention and study as have other classes of machinery. In this perfection of this machinery Messrs. Walker & Elliott, Wilmington, Del., have been important factors and have devoted 25 years to a close study of their products and with results that are best attested by the many plants which have adopted them in all parts of the country. This firm makes a complete line of fertilizer machinery and a number of specialties and is in a position to design and equip plants in their entirety. The principal products of the firm are splendidly illustrated and described in detail in its twenty-fifth anniversary catalogue, which has just been issued. Fertilizer manufacturers who feel that they are not getting full returns from their plants or desire to increase their products will be sent this catalogue upon application and also given such other information as they may desire concerning its contents.

#### Osborn Engineering Co.

It is often desired to place directly in charge of one person or company the full responsibility for carrying out the details and construction work of large undertakings. Such, for example, may be cited the designing, constructing and equipping ready for business of manufacturing plants, steam and electric railway systems, electric-power plants, bridges and buildings, water-works, etc. Few companies make a specialty of such work, but of those which undertake it in its entirety is the Osborn Engineering Co., Osborn Building, Cleveland, Ohio. This company is really an association of expert engineering specialists, formed for the purpose of expeditiously handling all problems that may arise in the most diverse engineering practice. The following departments are operated, each in charge of experienced men: Designing of manufacturing plants, mechanical and electrical engineering, bridge and structural engineering, architectural engineering, railway engineering, and department of inspection and tests. For the purpose of bringing more effectually to the notice of the public and future clients the scope and character of its work, the company has issued a large cloth-bound volume of 156 pages illustrating some of the work which it has carried to successful completion in all parts of the country. Industrial plants of a widely diversified character and of every kind of construction are shown, likewise buildings and bridges of both steel and reinforced concrete, including office buildings, hotels, apartment-houses, State capitols and courthouses, railway work, etc. The Osborn Engineering Co. has branch offices in New York, Philadelphia and Atlanta.

#### Power-House in Interior of Dam.

There has just been completed at Patapsco, Md., a water-power-electric plant which has a unique feature, in that the turbines and generators (the power-house) are located in the interior of the dam, underneath the railway. The Amburson Hydraulic Construction Co., 176 Federal street, Boston, Mass., was the engineer and contractor, and writes the MANUFACTURERS' RECORD as follows in reference to the plant:

"The dam is to contain three 500-horsepower units. Two of these are to be placed at once, and the third as may be required in the future. The dam is one of our standard type of hollow half-apron dams.

It is 30 feet high and 200 feet long. Inasmuch as the entire width of the river was required for the railway, and further, that any attempt to build a detached power-house with penstock connections or canal would have been prohibitive in cost, we for the first time adopted the expedient of putting the power-house directly into the interior of the dam underneath the railway. The dam was a little too low to make this as thoroughly satisfactory as we could wish, but on the whole the arrangement is likely to prove very successful. It is certainly the first case of its kind probably in the world."

The Patapsco Electric & Manufacturing Co.'s officers are: President, Thomas Van Loan; treasurer, Victor G. Bloede, and secretary, James C. Nowlin. They can be addressed at Station D, Baltimore, Md.

#### LARGE GIFTS AND EDUCATION.

[New York *Journal of Commerce*.]

Gifts of unprecedented amount lately made to the cause of education in its various branches should focus attention throughout the country upon the numerous problems connected with such benefactions. As is well known, the receiving and applying of any large endowment to educational purposes raises questions which are most troublesome in character, not only from the technical standpoint, but from that of carrying out the intentions of the giver. For a long time it has been seriously doubtful in many minds whether certain of the gifts that have come to universities and colleges from wealthy men have not in some ways had an injurious effect. There are many who assert that the consequence of such gifts has been to make institutions unduly worshipful toward wealth and to place them in an attitude of too ready concession to the wishes of their benefactors.

If there has actually been some danger of the kind referred to it must be evident that this danger, whatever it may be, is greatly intensified by the manner of the recent endowments. It is a noteworthy fact, constituting almost a new departure in education, that these large gifts have been placed in the hands of boards of trustees for distribution to those who are to benefit from them, instead of being directly applied. There can be no doubt in the mind of any close observer of education that the effect of this policy is greatly to strengthen the bond between the giver and the recipient of money under such conditions, and to make the latter in a larger measure than ever before dependent upon the feelings and fancies of the former. This tendency has already made itself apparent in the case of great benefactions which have been accompanied by the stipulation that those who are to profit from them must fulfill certain prescribed requirements before they can become recipients of any income or lump sums from the funds set apart. The drift thus begun will undoubtedly be made stronger and stronger as time goes on and as institutions become more and more in the habit of looking to a few large givers as regular sources of supply. It is a grave danger that, through being accustomed to depend upon sums that may be cut off at any time, as the fancy takes the givers or their agents, our colleges and universities may seek to model their views and teachings closely upon the lines which they know to be acceptable to their benefactors. This is an influence stronger far than that which is exerted in the case of single sums given at irregular intervals to isolated colleges or universities.

A system of giving which has its own rules and customs, which is governed by principles of selection laid down in the beginning, which ramifies throughout the country and embraces especially those

smaller institutions that are hampered by narrow means, is an infinitely more powerful force in the shaping of opinion than any single capitalist, who makes separate and often unconditional gifts to be controlled and invested by the institutions themselves, could ever be. As a mechanism for controlling academic opinion, there has perhaps never been anything in the history of education that would compare with the board system of subsidizing learning.

It is one thing to point out dangers of this sort and another to show that they are more than merely latent. Few persons, probably, would be ready to charge that the great funds recently set apart by liberal givers for educational purposes were designed for any object other than that for which they are confessedly to be used. That they may be directed toward the control of teaching or of the expression of opinion is, however, suggested by the limitations placed about their distribution, though it is nowhere expressly acknowledged. How far such a purpose really exists or has been present to the minds of the givers is purely a matter for conjecture. But it involves no reflection upon the purposes or intent of those who have given these generous funds to say that their gifts can very easily be used in the way indicated, and that the new mode of administration opens the door to such a use further than ever before. The practical question now is, how far the men who are in charge of education throughout the country will protect themselves against such subtle and sometimes unconscious influences as are here referred to. They have the matter in their own hands, for they are not compelled to accept the outpouring of money save upon terms which will maintain intact their own self-respect.

Gifts to education are like campaign contributions, in that they are best made in relatively small amounts and from many sources. Under such circumstances they are likely to leave the recipients in position to choose their own course in matters of opinion and teaching. If they must be large, it requires greater force of character to maintain independence of thought and action. Such freedom has been lacking in too many quarters. The spectacle of a university president preaching the maintenance of some of the worst abuses of capitalism and another weekly bowing the knee to receive the money offered by those for whose acts he had but lately suggested social ostracism as a penalty is not edifying. Instances can be given in abundance where the mere prospect of an immediate gift has changed the whole current of a college administrator's thought and made him trim his sails on an entirely new tack to catch the favoring breezes of prosperity. The craze and competition for large numbers of students has greatly crippled those who would uphold the older traditions of independent economic thinking. Increasing numbers mean increasing expense in college administration and lead to growing dependence on wealth of doubtful origin. This, among other reasons, is ground for thinking that the enormous benefactions of the past few years, whether as pensions, endowments or annual gifts to colleges, may put our academic thinkers into a moral strait-jacket at the same time that they are freed from the cramping influences of limited means.

Concrete Factories, an illustrated review of the principles of construction of reinforced concrete buildings, by Robert W. Lesley, Associate Am. Soc. C. E., editor *Cement Age*. Published for the *Cement Age* by Bruce & Banning, 1 Madison avenue, New York. Price \$1.

This volume, which is one of the latest contributions to cement literature, contains in a condensed form a series of

papers by men well versed in the subject, descriptive of the uses of cement and concrete as applied to the construction of industrial plants. It offers a complete review of the principles underlying reinforced concrete construction, and is written in a style that admits of ready comprehension by the layman as well as the engineer. It contains the report of the subcommittee on tests, the report of the United States Advisory Board on fuel and structural materials a translation of the French rules on reinforced concrete issued by the Ministry of Public Works of France, and a number of articles, replete with illustrations, showing the methods of reinforced concrete construction in all the leading systems. This compilation also includes an article on the advantages of reinforced concrete as a structural material for factories by Walter Mueller, and he covers in a concise form a description of the systems now in general use: one covering a general review of the principles of concrete construction and giving illustrations of modern concrete factories by E. A. Trego; an article on the artistic surface finishing of concrete buildings by Henry H. Quimby, M. Am. Soc. C. E., and a symposium of articles dealing with the value of concrete as a structural material by men who have obtained results. Manufacturers, architects and engineers should find this volume of much assistance to them in arriving at the value and merits of concrete for factory construction purposes.

#### FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

#### Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,  
Baltimore, Md., February 20.

Dullness has been the principal feature of the Baltimore stock market during the past week. Sales of bonds fell off, and about the only variation in conditions was some trading in Cotton Duck stocks as a result of the favorable report just published.

In the trading United Railways common sold from 12½ to 13¼; the trust certificates at 13; the income bonds from 56½ to 57, and the funding 5s and funding scrip at 86; the 4s at 89½ to 90. Consolidated Gas, Electric Light & Power was dealt in at 35; the preferred at 84 to 84½, and the 4½s from 83 to 83½; Gas 6s at 103½ to 103¾, and the 5s at 100½ to 100¾. Seaboard Company common changed hands at 20½; the second preferred at 43½; Seaboard 4s at 80½ to 81, and the 10-year 5s at 100; Cotton Duck common from 11½ to 13¼; the preferred from 33 to 33¾, and the 5 per cent. bonds at 84 to 85. G.-B.-S. Brewing common sold at 5 to 6; the income bonds from 22 to 24, and the 1sts from 56½ to 57.

Marine Bank sold at 39; Third National at 109; Commercial and Farmers, white certificates, 115; Fidelity & Deposit, 130; Baltimore Trust, 325; Mercantile Trust, 128; Union Trust, 62½.

Other securities were traded in as follows: Alabama Consolidated Coal & Iron preferred, 93 to 93½; Canton Company, Baltimore, 90; Northern Central Railway, 95½ to 95, and fractions at 95 to 97; City & Suburban (Washington) 5s, 103; Knoxville Traction 5s, 107; Maryland & Pennsylvania incomes, 65; do. 4s, 92½; Atlantic Coast Line 4s, 98½ to 98¾; Wilmington & Weldon 5s, 114; City & Suburban (Baltimore) 5s, 108½; Georgia, Carolina & Northern 5s, 108; Philadelphia Company preferred, 46½; Georgia & Ala-

bama 5s, 107½%; Consolidation Coal, 94; Atlantic Coast Line new 4s, certificates, 88; Petersburg A 5s, 113; Baltimore, Sparrows Point & Chesapeake 4½s, 93½; Western Maryland 4s, 81 to 81½; Houston Oil preferred, 48½; German Fire Insurance, Baltimore, 19; Coal & Iron Railway 5s, 103; Richmond Traction 5s, 102½%; Colorado Southern 4s, 91%; Charleston & West Carolina 5s, 110½; Comas Cigarette Machine common, 20; Virginia deferred, Brown Bros. certificates, 21½.

### SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended February 20, 1907.

**Railroad Stocks.** Par. Bid. Asked.

Atlantic Coast	100	123
Atlantic Coast of Connecticut	100	320
Georgia Southern & Florida	100	30
Georgia Sou. & Fla. 1st Pfd.	100	95
Georgia Sou. & Fla. 2d Pfd.	100	70
Norfolk & Portsmouth Trac.	32½	...
Seaboard Company Common	100	20
Seaboard Company 1st Pfd.	100	70
Seaboard Company 2d Pfd.	100	40
Seaboard Company 3d Pfd.	100	13

**Bank Stocks.**

Citizens' National Bank	10	30
Com. & Far. White Ctrfs.	100	115
Com. & Far. Blue Ctrfs.	100	125
Drovers & Mech. Natl. Bank	100	225
Far. & Merchants' Nat. Bank	40	52
First National	100	136
Maryland National Bank	20	29
MERCHANTS' NATIONAL BANK	100	175
National Bank of Baltimore	100	116
National Bank of Commerce	15	27
National Howard Bank	10	12½
National Marine Bank	30	38½
National Mechanics' Bank	10	26
National Union Bank of Md.	100	114
Third National Bank	100	108

**Trust, Fidelity and Casualty Stocks.**

Continental Trust	100	190
Fidelity & Deposit	50	129
Fidelity Trust	100	202
Maryland Trust Pfd.	100	101
Mercantile Trust & Deposit	50	125
Union Trust	50	62½

**Miscellaneous Stocks.**

Ala. Con. Coal & Iron Pfd.	100	91
Con. Cotton Duck Common	50	12½
Con. Cotton Duck Pfd.	50	32½
Con. Gas, Elec. Lt. & P. Com.	34½	...
Consolidation Coal	100	92½
G. B. S. Brewing Co.	100	6
George's Creek Coal	100	76
Mer. & Miners' Trans. Co.	100	185

**Railroad Bonds.**

Albany & Northern 5s, 1946	95	...
Atlanta & Charlotte Ext. 4½s	100	100%
Atlanta Coast Line 1st 4s, 1952	97½	98½
Atlanta Coast Line 4s, Ctrfs, 1952	88	88½
Atlanta Coast Line (Conn.) 4s	98	...
Carolina Central 4s, 1949	93	...
Charleston & West. Car. 5s, 1946	110½	111
Char. Col. & Aug. 1st 5s, 1910	112	...
Char. Col. & Aug. 2d 7s, 1910	109	...
Coal & Iron Railway 5s, 1920	102½	103
Florida Southern 4s, 1940	96	...
Georgia & Alabama 5s, 1945	107½	107¾
Georgia, Car. & North 1st 5s, 1928	108	...
Georgia Pacific 1st 5s, 1922	119	...
Georgia Sou. & Fla. 1st 5s, 1945	109½	110½
Maryland & Pennsylvania 4s, 1961	95	...
Petersburg, Class A 5s, 1926	112	113
Petersburg, Class B 6s, 1926	125	126½
Piedmont & Cum. 1st 5s, 1911	100	...
Potomac Valley 1st 5s, 1941	113	...
Richmond & Danville Gold 6s, 1915	10½	...
Savannah, Fla. & West. 5s, 1834	113	...
Seaboard Air Line 4s, 1950	50%	81
Seaboard Air Line 5s, 10-year, 1911	100	100%
Seaboard & Roanoke 5s, 1926	108	...
South Bound 5s, 1941	110	110½
Southern Railway Co. 5s, 1994	112	...
Virginia Midland 2d 6s, 1911	108	109%
Virginia Midland 5th 5s, 1926	109½	...
Virginia Midland G. M. 5s	112	...
Western Maryland new 4s, 1952	81½	81%
Western N. Car. Con. 6s, 1914	110½	110%
West Va. Central 1st 6s, 1911	105½	...
Wil. Col. & Aug. 6s, 1910	105	...
Wil. & Weldon Gold 5s, 1935	113½	114½

**Street Railway Bonds.**

Anacostia & Potomac 5s, 1949	103	...
Baltimore City Passenger 5s	101	102
Central Ry. Con. 5s (Balt.)	110	111½
Charleston City Ry. 5s, 1923	104	...
Charleston Con. Elec. 5s, 1939	94	...
City & Suburban 5s (Balt.)	108½	108½
City & Suburban 5s (Wash.)	103	...
Metropolitan 5s (Wash.)	110	111
Norfolk Street Ry. 5s, 1944	107	108½
North Baltimore 5s, 1942	112½	...
United Railways 1st 4s, 1949	89½	89%
United Railways Inc. 4s, 1949	56%	56%
United Ry. Inc. 4s, non-assess	70½	72
United Railways Funding 5s	55%	56

**Miscellaneous Bonds.**

Atlanta Gas 1st 5s, 1947	101	...
Baltimore Electric Power 5s	81½	83
Con. Gas 6s, 1910	103½	103%
Con. Gas 6s, 1939	109½	110
Con. Gas 4½s	96½	97
Con. Gas, Elec. Lt. & P. 4½s	82½	83½
G. B. S. Brewing 1st s	57½	58
G. B. S. Brewing 2d Inc.	23½	...
Maryland Telephone 5s	89	...
Mt. V. & Woodberry Cot. Duck 5s	84½	85
United Elec. Lt. & Power 4½s	91	92

### SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending February 18.

Bid. Asked.

Abbeville Cotton Mills (S. C.)	94	95
Aiken Mfg. Co. (S. C.)	85	88
Anderson Cotton Mills (S. C.)	95	...
Arkwright Mills (S. C.)	112½	122
Augusta Factory (Ga.)	80	85
Avondale Mills (Ala.)	112	116

Bolton Mills (S. C.)	105	110
Bibb Mfg. Co. (Ga.)	122	...
Brandon Mills (S. C.)	122	126
Cabarrus Cot. Mills (N. C.)	new	120
Chadwick Mfg. Co. (N. C.)	Pfd.	100
Chiquoia Mfg. Co. (S. C.)	100%	101½
Clifton Mfg. Co. (S. C.)	...	117½
Clifton Mfg. Co. (S. C.) Pfd.	103	...
Clinton Cotton Mills (S. C.)	150	...
Columbus Mfg. Co. (Ga.)	96	101
Courtenay Mfg. Co. (S. C.)	...	100
Dallas Mfg. Co. (Ala.)	90	95
Darlington Mfg. Co. (S. C.)	78	82
Eagle & Phenix Mills (Ga.)	130	135
Easley Cotton Mills (S. C.)	132	136
Enoree Mfg. Co. (S. C.)	...	80
Enoree Mfg. Co. (S. C.) Pfd.	100%	...
Enterprise Mfg. Co. (Ga.)	90	94
Exposition Cotton Mills (Ga.)	200	...
Gaffney Mfg. Co. (S. C.)	93	95
Gainesville Cotton Mills (Ga.)	40	50
Graniteville Mfg. Co. (S. C.)	165	...
Greenwood Cotton Mills (S. C.)	93	96
Grendel Mills (S. C.)	115	120
Henriette Mills (N. C.)	...	175
King Mfg. Co. John P. (Ga.)	100	103
Lancaster Cotton Mills (S. C.)	106	107
Lancaster Cot. Mills (S. C.) Pfd.	98	93½
Langley Mfg. Co. (S. C.)	92	96
Laurens Cotton Mills (S. C.)	160	...
Limestone Mills (S. C.)	115	123
Lockhart Mills (S. C.)	99	102
Lockhart Mills (S. C.) Pfd.	97	100
Louise Mills (N. C.)	90	95
Louise Mills (N. C.) Pfd.	...	98
Marlboro Cotton Mills (S. C.)	...	90
Mayo Mills (N. C.)	165	185
Mills Mfg. Co. (S. C.)	100	101
Monaghan Mills (S. C.)	99	101
Monarch Cotton Mills (S. C.)	106	106
Newberry Cotton Mills (S. C.)	126	140
Norris Cotton Mills (S. C.)	106	110
Olympia Cot. Mills (S. C.) Pfd.	80	...
Orangeburg Mfg. Co. (S. C.) Pfd.	90	97
Orr Cotton Mills (S. C.)	100	102
Pacolet Mfg. Co. (S. C.)	176	...
Pacolet Mfg. Co. (S. C.) Pfd.	101½	103
Pelzer Mfg. Co. (S. C.)	170	176
Piedmont Mfg. Co. (S. C.)	170	177
Poe Mfg. Co. (S. C.)	127	128
Richland Cot. Mills (S. C.) 1st Pfd.	52%	...
Raleigh Cotton Mills (N. C.)	99	105
Roanoke Mills (N. C.)	140	...
Saxon Mills (S. C.)	107	...
Sibley Mfg. Co. (Ga.)	63	65
Spartan Mills (S. C.)	145	150
Springsteel Mills (S. C.)	100	...
Tucapau Mills (S. C.)	130	...
Trion Mfg. Co. (Ga.)	130	142
Tucapau Mills (S. C.)	180	200
Union-Buf. Cot. Mills (S. C.) 1st Pfd.	75	...
Victor Mfg. Co. (S. C.)	120	130
Warren Mfg. Co. (S. C.)	96	98
Warren Mfg. Co. (S. C.) Pfd.	105	...
Washington Mills (Va.)	...	30
Washington Mills (Va.) Pfd.	100	115
Whitney Mfg. Co. (S. C.)	146	...
Wiscasset Mills (N. C.)	122	125
Woodruff Cotton Mills (S. C.)	126	130

Tucapau Mills (S. C.)	185	...
Union-Buffalo 1st Pfd.	67	75
Union-Buffalo 2d Pfd.	25	...
Victor Mfg. Co. (S. C.)	115	...
Warren Mfg. Co. (S. C.)	97	100
Warren Mfg. Co. (S. C.) Pfd.	105	107
Washington Mills (Va.)	25	...
Washington Mills (Va.) Pfd.	100	105
Whitney Mfg. Co. (S. C.)	150	...
Wiscasset Mills (N. C.)	119	...
Woodruff Cotton Mills (S. C.)	125	130

### Eutaw Savings Bank.

The Eutaw Savings Bank of Baltimore, which has announced that on April 1 it will increase the rate of interest on deposits to 3½ per cent. a year, besides declaring an extra dividend, which makes the rate 3½ per cent. for the past year, has also issued its annual report containing a list of the different investments of the bank. They are principally in municipal and railroad bonds, with some government bonds and a few miscellaneous securities. The bank had on December 31, 1906, funds amounting to \$22,060,377, a net increase of \$462,522 during the year. The number of depositors was 45,525, and the deposit account, not including accrued interest payable April 1, 1907, was \$19,660,890. The cash in bank was \$986,307. The bank has no capital stock, being operated in the interest of depositors. The officers are William M. Hayden president, Edward L. Robinson vice-president, John S. Deale treasurer, Frank G. Evans assistant treasurer. The board of directors is composed of 24 well-known business men of Baltimore.

### Bank Reports.

The First National Bank of St. Petersburg, Fla., reports January 26, 1907, loans and discounts, \$113,847; due from banks and United States Treasurer, \$54,146; cash in vault, \$14,625; capital stock, \$25,000; surplus earned, \$15,000; undivided profits, \$1773; deposits, \$168,448; total resources, \$235,221. John Trice is president, T. A. Chancellor cashier and Chas. B. Campbell assistant cashier.

The American National Bank of Bluefield, W. Va., reports February 2, 1907, bills receivable, \$220,415; due from banks, \$95,908; cash and due from United States Treasury, \$25,456; capital stock, \$100,000; undivided profits, \$4000; bills payable and rediscounted, \$32,500; deposits, \$222,154; total resources, \$403,664. W. E. Fowler is president, D. G. Lilly, L. G. Toney and E. A. Williams vice-presidents and J. Lee Harne, cashier.

### Tidewater Note Issue.

New York financial circles report that a note issue for \$10,000,000 at 6 per cent. has been floated for the Tidewater Railway, now under construction in Virginia and West Virginia, the notes being indorsed by H. H. Rogers, who, as heretofore reported, has been backing the line ever since its construction was started. The notes were taken by the Central Trust Co. and sold by it to bankers in New York and London. This, it is said, is the first public financial act on the part of the new road.

At Social Circle, Ga., bids will be received by W. B. Spearman, Mayor, and the Council until 10 A. M. March 18 for \$16,000 of 5 per cent. 20-year electric light-plant bonds. Further particulars will be found in the advertising columns.

### New Corporations.

A bank with \$50,000 capital is reported being organized at Dallas, Texas.

The Fluvanna County Bank is reported to have begun business at Fork Union, Va.

The People's National Bank has been organized at Earlington, Ky., by C. C. Givens and C. L. Finley.

The Merchants' Bank of Greenwood, Miss., has begun business with \$50,000 capital. Rowan Thayer is president.

Plans are reported being promoted to

organize a new national bank and trust company at Highlandtown, near Baltimore, Md.

The Cocke County Bank has been established at Newport, Tenn., with \$25,000 capital. J. A. Susong is president and W. B. Robinson cashier.

The officers of the Buchel National Bank at Cuero, Texas, are Otto Buchel president, W. H. Graham vice-president and Joe Sheridan cashier.

The Farmers' National Bank of Midlothian, Texas, has been approved; capital \$25,000. The organizers are J. E. Sewell, S. J. Martin, L. O. Moore, J. H. Hendricks and S. A. Belew.

The Hammer State Bank of Hammer, O. T., has been incorporated with \$10,000 capital by J. S. Huston, E. D. Foster and Eugenia B. Foster of Thomas.

The Dayton State Bank of Dayton, Texas, capital \$10,000, has been incorporated by L. Fouts, R. S. Sterling, R. E. Forker, J. T. Tadlock and others.

The People's State Bank of Kirbyville, Texas, has been incorporated with \$20,000 capital by D. McMickin, J. Woods, J. M. Nixon, R. J. Cooper and T. S. Wright.

The Knox County Consolidated Abstract Co. of Benjamin, Texas, has been incorporated with \$5000 capital by H. C. Wilson, P. D. Sanders, W. C. Johnson and others.

The Bank of Jerico at Jerico Springs, Mo., has been chartered with \$10,000 capital by C. S. Brown and others of Jerico Springs and F. K. Crawford of Wagoner.

The Bank of Redfork, I. T., capital \$5000, has organized with T. A. Henry, president; J. H. Simmons, vice-president, and Allen Henry, secretary and treasurer.

Application for a charter for the Fidelity Discount Co. of Atlanta, Ga., capital \$10,000, has been made by Charles T. Johnson, C. D. Gibbs and J. T. Thompson.

The Bank of Westmoreland at Colonial Beach, Va., has been granted a charter; capital \$50,000. The incorporators are F. F. Ninde, W. F. Renshaw and George Mason.

The National Opportunity & Brokerage Co. of Oklahoma City, O. T., has been approved; capital \$30,000. The incorporators are L. and H. Hartzell and C. C. Latimer.

The Farmers' Bank of Sullivan County has been established at Blountville, Tenn. Gule Barber of Rose Hill, Va., and J. B. Vall are mentioned in connection with the enterprise.

The First State Bank of Graford, Texas, capital \$25,000, has been organized by Cicero Smith, Marcus M. Bright, J. L. Cunningham, D. M. Howard, John H. Eaton and R. P. Lee.

